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DEPARTMENT OF EDUCATION**

ELLEN WEAVER
STATE SUPERINTENDENT OF EDUCATION



**Career and Technical Education (CTE)
Course Catalog**

Office of Career and Technical Education and Student Transition Services

2024 -2025 School Year (revised 10-2024)

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Introduction

The South Carolina Career and Technical Education (CTE) Course Catalog is a listing of CTE courses categorized by career clusters and include course codes, recommended maximum enrollments, numbers of Carnegie Units per course, prerequisites, methods of delivery, and course descriptions. A credit-bearing course not listed in this document is either an innovative course, an academic course, a locally designed elective course approved by the local board of trustees, or a locally designed subject-area course approved by the South Carolina Department of Education (SCDE). Middle school courses are shown at the beginning of their perspective career clusters.

Contents

The Contents provide a list of CTE courses, categorized by career cluster. A cluster or course section and page number can be quickly found, then immediately accessed without having to scroll or page through the document. Clicking anywhere within the text of a cluster or course title will immediately take you to that cluster or course. To execute a link, hold down the control key, then click the mouse or keypad.

Additional Information

The Data Dictionaries Course Activity Codes is a Microsoft Excel table that replaces the annual Activity Coding System Manual and lists all South Carolina Department of Education's active courses, codes, and identifiers such as grade span, academic weighting, units, subject-matter graduation credit, and more. [[DDCAC](#)]

CTE Student Reporting Procedures Guide is the Office of Career and Technical Education's official guide for PowerSchool data entry and reporting. Definitions, cluster, program requirements, certifications with descriptions, and additional information is provided to show Local Education Agencies how to provide middle school offerings and implement Career and Technical Education Completer programs. [[SRPG](#)]

Required Credentials for Professional Staff Members is a tabular listing of most district office and school positions, along with the required credentials for each of those positions. All professional instructional staff must hold South Carolina educator licenses to meet accreditation standards mandated by State Board of Education Regulation 43-300. [[RCPSM](#)]

South Carolina Educator Certification provides information regarding certification status, forms and resources, educator recruitment, procedures to maintain and advance certification, and responses to frequently asked questions. [[SCEC](#)]

The Work-Based Learning Implementation Guidelines assist all educators in building and implementing a strong work-based learning program that will prepare each student for seamless transition from secondary education to postsecondary education, the military, and/or the workforce, where each student will be able to successfully compete in our global economy. [[WBL](#)]

Methods of Instructional Delivery

There are currently three instructional delivery methods available for CTE courses. A brief description of each method is provided below.

Method 1. Face-to-Face (F-2-F)

Face-to-face is an in-person synchronous instructional method that focuses on concurrent, collective, and collaborative learning opportunities for students. This method requires regularly scheduled times of contact between teachers and students at a physical school or brick-and-mortar.

Method 2a. Virtual – Synchronous (V-S)

Virtual synchronous delivery refers to two-way, real-time, live instruction between teachers and students, through a computer or other electronic device.

Method 2b. Virtual – Asynchronous (V-AS)

Virtual asynchronous delivery does not occur in real time. Asynchronous virtual delivery is designed so students can access information, demonstrate what they learn, and communicate with classmates and instructors on their own time. Asynchronous online learning includes self-guided lesson modules, pre-recorded video content, virtual libraries, lecture notes, and online discussion boards or social media platforms.

Method 3. Hybrid (H)

The hybrid method of delivery combines face-to-face classroom instruction with online activities. This approach requires a specified amount of face-to-face and on-line learning.

Middle School Career Clusters Course

Introduction to Career Clusters

Course Code	1830 (6), 2830 (7, 8)
Recommended Maximum Enrollment	30
Grade Level	6, 7, 8
Credits	NA
Prerequisite	NA
Method of Delivery	F-2-F, Hybrid, Virtual

Introduction to Career Clusters is designed to provide middle schools with a course in which students are introduced to career possibilities in the sixteen national career clusters adopted by the South Carolina Department of Education. Students will have an opportunity to explore job tasks and career opportunities in each cluster while identifying pathways from high school to post-secondary education and the workplace. Students will learn skills needed for success in college and careers with relevance to academic standards. This course is exposure to help each student gain an understanding of careers to assist in the development of an initial Individual Graduation Plan (IGP) in the 8th grade.

High School Exploratory Course

Course Code	5750
Recommended Maximum Enrollment	24
Grade Level	9, 10, 11, 12
Credits	1
Prerequisite	NA
Method of Delivery	F-2-F, Hybrid, Virtual

The Career Exploratory course is designed to provide high schools students with the opportunity to explore coursework in different careers and will help them determine employment options that fit their career and skill interests. Students will have an opportunity to explore job tasks and career opportunities in several different clusters while identifying pathways from high school to post-secondary education and the workplace. **This course cannot count as a part of a CTE completer program.**

Personal Finance .5-unit Graduation Requirement Course

Personal Finance

Course Code	5141
Recommended Maximum Enrollment	24
Grade Level	9, 10, 11, 12
Recommended Grade Level	11, 12
Credits	.5 (60 hours)
Prerequisite	None
Method of Delivery	F-2-F, Hybrid, Virtual

This one-half (.5) unit Personal Finance course fulfills the requirement for graduation credit. It is designed to help students develop skills to make informed financial decisions, manage financial resources, and plan for future financial success. Using experiential activities, students will learn the basic principles of personal finance and how to manage their money in a global economy, which include budgeting, banking, insurance, mortgages, savings, investments, inheritance, retirement, tax, and estate planning. Students will also learn about consumer protection laws, internet safety, and cyber security, enabling them to safeguard financial information against technology-based attacks. **This course cannot count as a part of a CTE completer program.**

Middle School — Agriculture, Food & Natural Resources Cluster

Introduction to Agriculture – 6th Grade

Course Code	1856
Recommended Maximum Enrollment	30
Grade Level	6
Credits	NA
Prerequisite	NA
Method of Delivery	F-2-F, Hybrid

Introduction to Agriculture for sixth grade is designed to develop in middle school students an awareness of the relationships between agriculture and science. Major concepts covered in the course include an awareness of agriculture, the world of work, agribusiness careers, human relations, and scientific principles applied in agriculture. The course is offered on a semester or fewer bases for sixth-grade students and units include Orientation to Agriscience, Plants and Animals in Agriscience, Communication Skills, Orientation to Agricultural Technology, Orientation to Ecology and Conservation, and Orientation to Agriscience Careers.

Introduction to Agriculture – 7th Grade

Course Code	2856
Recommended Maximum Enrollment	30
Grade Level	7
Credits	NA
Prerequisite	NA
Method of Delivery	F-2-F, Hybrid

Introduction to Agriculture for the seventh grade is designed to assist students in exploring science as it relates to agriculture. Through well planned instructional activities, students can develop an understanding of human relations, communication, the importance of agriculture to the economy, and key scientific terms related to the field of agriculture concepts. The course is offered on a semester or less basis for seventh-grade students and units include Exploration of Agriscience, Recognizing the Importance of Agriculture/Agriscience, Exploration of Natural Resources and the Environment, Exploration of Science Process in Agriculture, Soil and Plant Science, Animal Science, Introduction to Basic Laboratory Principles, and Personal Development through Agriscience Activities.

Introduction to Agriculture – 8th Grade

Course Code	2856
Recommended Maximum Enrollment	30
Grade Level	8
Credits	NA
Prerequisite	NA
Method of Delivery	F-2-F, Hybrid

Introduction to Agriculture for the eighth grade is designed to allow students to apply scientific principles to the field of agriculture in a laboratory setting. Students are introduced to new technology and its impact on agriculture. An introduction to regional and/or international agriculture and marketing concepts in agriculture are also included. The course is offered on a semester or less basis for eighth-grade students.

High School – Agriculture, Food & Natural Resources Cluster

Agribusiness and Marketing

Course Code	5600
Recommended Maximum Enrollment	30
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	One of the following courses: Agricultural Science and Technology, Agricultural Mechanics and Technology, Environmental and Natural Resources Management, Introduction to Horticulture, or Agricultural Biosystems Science (depending on the pathway)
Method of Delivery	F-2-F, Hybrid

Agribusiness and Marketing is designed for the student who plans to seek employment on, manage, or own a farm or who seeks employment in an agribusiness field. Students will be involved in learning activities that generally prepare them to apply the economic and business principles involved in the organization, operation, and management of a farm, ranch, or agribusiness. Typical hands-on learning experiences include applying modern economic and business principles involved in the organization, operation, and management of agricultural businesses, including the production and marketing of agricultural products and services; applying computer application models; participating in personal and community leadership development activities; planning and implementing a relevant work-based learning transition experience; and participating in Future Farmers of America (FFA) activities, and participates in a supervised agricultural experience. Typical hands-on learning experiences include performing research on the basic principles of plant, soil, and animal science; studying and modeling the significance of humankind's interrelationship with soil, water, and air; and participating in Future Farmers of America (FFA) activities.

Agricultural and Biosystems Science

Course Code	5691
Recommended Maximum Enrollment	30
Grade Level	9, 10, 11, 12
Credits	1 (120 hours)
Prerequisite	None
Method of Delivery	F-2-F, Hybrid

Agricultural and Biosystems Science teaches essential concepts related to skills needed to pursue a career in a biotechnology field. Emphasis is placed on scientific research and development (R&D) and how it can be used to create future advancements in agriculture. Students will learn the basic principles of plant and animal science as well as the role of agriculture in our society and the importance of agriculture to the welfare of the world. Basic personal and community leadership and safety practices are included, and each student designs and participates in a supervised agricultural experience. Typical hands-on learning experiences include performing research on the basic principles of plant, soil, and animal science; studying and modeling the significance of humankind's interrelationship with soil, water, and air; and participating in Future Farmers of America (FFA) activities.

Agricultural Crop Production and Management

Course Code	5614
Recommended Maximum Enrollment	20
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	Agricultural Science and Technology or Agricultural Biosystems Science
Method of Delivery	F-2-F, Hybrid

The Agricultural Crop Production and Management course prepares students to operate enterprises producing cereal grain, fiber, forage, oilseed, tree fruits and nuts, small fruits, vegetables and other plant products and includes instruction in soils, plant physiology, crop cultivation practices, plant diseases, pest management, harvesting, and marketing.

Agricultural Mechanics and Technology

Course Code	5660
Recommended Maximum Enrollment	20
Grade Level	9, 10
Credits	1 (120 hours)
Prerequisite	None
Method of Delivery	F-2-F, Hybrid

The Agricultural Mechanics and Technology course is designed as an introductory course to the Agriculture Mechanics Career Pathway. In addition, it provides development of general mechanical skills, which are required in all areas of Agricultural Education. Typical instructional activities include hands-on experiences in woodworking, metalworking, welding, small engine repair, basic farm and homestead improvements, participating in personal and community leadership development activities, planning and implementing a relevant work-based learning transition experience, and participating in Future Farmers of America (FFA) activities.

Agricultural Mechanics and Technology for the Workplace 1

Course Code	5604
Recommended Maximum Enrollment	20
Grade Level	9, 10, 11
Credits	2 (240 hours)
Prerequisite	None
Method of Delivery	F-2-F, Hybrid

The Agricultural Mechanics and Technology for the Workplace 1 course is designed as an introductory course to the Agriculture Mechanics Career Pathway. Typical instructional activities include hands-on experiences in woodworking, metalworking, welding, small engine repair, basic farm and homestead improvements, participating in personal and community leadership development activities, planning and implementing a relevant work-based learning transition experience, and participating in Future Farmers of America (FFA) activities.

Agricultural Mechanics and Technology for the Workplace 2

Course Code	5605
Recommended Maximum Enrollment	20
Grade Level	11, 12
Credits	2 (240 hours)
Prerequisite	Agricultural Mechanics and Technology for the Workplace 1
Method of Delivery	F-2-F, Hybrid

Agricultural Mechanics and Technology for the Workplace 2 combines subject matter and activities to teach technical knowledge and skills required for entry-level positions in selling, selecting, and servicing agribusiness technical equipment and facilities, including computers, specialized software, power units, machinery equipment, structures, and utilities. Courses in the Agricultural Mechanics and Technology program are designed to qualify the student completing the courses for job entry into farm, business, or industrial phases of agricultural mechanics or to continue advanced training post high school.

Agricultural Power Mechanics

Course Code	5610
Recommended Maximum Enrollment	20
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	Agricultural Mechanics and Technology
Method of Delivery	F-2-F, Hybrid

The courses in Agricultural Mechanics are designed to qualify the student completing the courses for job entry into farm, business, or industrial phases of agricultural mechanics or to continue advanced training in post high school education. A combination of subject matter and activities is designed to teach technical knowledge and skills for entry-level positions in selling, selecting, and servicing agribusiness technical equipment and facilities, including computers, specialized software, power units, machinery equipment, structures and utilities. Typical instructional activities include hands-on experiences with agricultural power units, participation in personal and community leadership development activities, and planning and participation in Future Farmers of America (FFA) activities.

Agricultural Science and Technology

Course Code	5624
Recommended Maximum Enrollment	30
Grade Level	9, 10
Credits	1 (120 hours)
Prerequisite	None
Method of Delivery	F-2-F, Hybrid

The Agricultural Science and Technology course teaches essential concepts and understanding related to plant and animal life including biotechnology, the conservation of natural resources, and the impact of agriculture and natural resource utilization on the environment. Emphasis is placed on the role of agriculture in our society and the importance of agriculture to the welfare of the world. Basic personal and community leadership and safety and agricultural mechanical technology are included as a part of the instructional program. Each student is required to design and participate in a supervised agricultural experience.

Agricultural Science and Technology for the Workplace

Course Code	5620
Recommended Maximum Enrollment	30
Grade Level	9, 10, 11
Credits	2 (240 hours)
Prerequisite	None
Method of Delivery	F-2-F, Hybrid

The Agricultural Science and Technology for the Workplace course teaches essential concepts and understanding related to plant and animal life including biotechnology, the conservation of natural resources, and the impact of agriculture and natural resource utilization on the environment. Emphasis is placed on the role of agriculture in our society and the importance of agriculture to the welfare of the world. Basic personal and community leadership and safety, and agricultural mechanical technology are included as a part of the instructional program. Each student is required to design and participate in a supervised agricultural experience.

Agricultural Structural Mechanics

Course Code	5611
Recommended Maximum Enrollment	20
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	Agricultural Mechanics and Technology
Method of Delivery	F-2-F, Hybrid

Agricultural Structural Mechanics courses are designed to qualify the student completing the courses for job entry into farm, business, or industrial phases of agricultural mechanics or to continue advanced training in post high school education. A combination of subject matter and activities is designed to teach technical knowledge and skills for entry-level positions in selling, selecting, and constructing structures and utilities. Typical hands-on instructional experiences include the planning and selection of materials for the construction of agricultural facilities, the mechanical practices associated with irrigation and water conservation, erosion control, metal fabrication, participation in personal and community leadership development activities, and planning and participation in Future Farmers of America (FFA) activities.

Animal Science

Course Code	5603
Recommended Maximum Enrollment	20
Grade Level	9, 10
Credits	1 (120 hours)
Prerequisite	Agricultural Science and Technology or Agricultural Biosystems Science
Method of Delivery	F-2-F, Hybrid

Animal Science provides an overview of the animal science industry, including information on the biological makeup of various species of agricultural livestock. It also provides students with beneficial information on animal behavior before they decide to embark on a career in Animal Science. Animal Science is recommended as a prerequisite for other courses in Animal Science. Typical instructional activities include hands-on experiences with the principles and practices essential in the production and management of farm animals and farm animal products for economic, recreational, and therapeutic uses; participating in personal and community leadership development activities; planning and implementing a relevant work-based learning transition experience; and participating in Future Farmers of America (FFA) activities.

Animal Science for the Workplace 1

Course Code	5608
Recommended Maximum Enrollment	20
Grade Level	10, 11
Credits	2 (240 hours)
Prerequisite	None
Method of Delivery	F-2-F, Hybrid

Animal Science for the Workplace 1 is designed to teach technical knowledge and skills for entry-level positions in an animal production enterprise by developing competencies concerning the selection, breeding, physiology, nutrition, health, housing, feeding, and marketing of farm and companion animals. Typical instructional activities include hands-on experiences with the principles and practices essential in the production and management of animals and animal products for economic, recreational, and therapeutic uses; participating in personal and community leadership development activities; planning and implementing a relevant work-based learning transition experience; and participating in Future Farmers of America (FFA) activities.

Animal Science for the Workplace 2

Course Code	5609
Recommended Maximum Enrollment	20
Grade Level	11, 12
Credits	2 (240 hours)
Prerequisite	Animal Science for the Workplace 1
Method of Delivery	F-2-F, Hybrid

The Animal Science for the Workplace 2 course covers animal care and veterinary science and is designed to teach technical knowledge and skills for occupations in the pet industry or the companion animal industry. Skills also relate to the veterinarian or the veterinarian technician career field. Typical instructional activities include hands-on experiences with cats, dogs, rabbits, fish, etc.; participating in personal and community leadership development activities; and planning a relevant work-based learning transition experience.

Aquaculture

Course Code	5663
Recommended Maximum Enrollment	20
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	One of the following courses: Agricultural Science and Technology, Environmental and Natural Resources Management, or Agricultural Biosystems Science (depending on the pathway)
Method of Delivery	F-2-F, Hybrid

The Aquaculture course is designed to teach knowledge and skills required for job entry into alternative agriculture through the husbandry of aquatic plants and animals. The ultimate objective of this course is to help students plan, build, stock, and run aquaculture facilities of varied sizes. Aquaculture projects require planning and management comparable to any other commercial endeavor. Typical learning activities include selecting a site, evaluating soil types, selecting equipment and planning a facility, managing water quality to promote good health and growth of selected aquatic species, participating in Future Farmers of America (FFA) personal and leadership development activities, and planning and conducting a supervised occupational experience program relevant to aquaculture.

Biosystems Mechanics and Engineering

Course Code	5692
Recommended Maximum Enrollment	20
Grade Level	10, 11
Credits	1 (120 hours)
Prerequisite	One of the following Agricultural Science and Technology, Environmental and Natural Resources Management, Introduction to Horticulture, or Agricultural Biosystems Science (depending on the pathway)
Method of Delivery	F-2-F, Hybrid

The Biosystems Mechanics and Engineering course is designed to teach basic physical science skills in relation to Agricultural Engineering. In addition, it provides for the development of general mechanical skills that are required in all areas of Agricultural Education. Typical instructional activities include hands-on experiences in developing research projects to examine ways to utilize agricultural crops in unique ways, to include the development of biofuels and other alternative energy sources and to discover new uses for agricultural products. In addition, students will participate in personal and community leadership development activities, plan and implement a relevant work-based learning transition experience and participate in Future Farmers of America (FFA) activities.

Biosystems Technology 3

Course Code	5695
Recommended Maximum Enrollment	20
Grade Level	11
Credits	1 (120 hours)
Prerequisite	Agricultural and Biosystems Science and Biosystems Mechanics and Engineering
Method of Delivery	F-2-F, Hybrid

The Biosystems Technology 3 course expands upon information and material introduced in the Agricultural and Biosystems Science and Biosystems Mechanics and Engineering courses. Content focuses on biological and engineering sciences important to the bioprocessing and biofuels industry, including microbial concepts, reactor design, and laboratory techniques inherent. Emphasis is placed on the role of agriculture in our society and the importance of agriculture to the welfare of the world. Basic personal and community leadership and laboratory safety are included. Each student is required to design and participate in a supervised agricultural experience. Typical hands-on learning experiences include performing basic principles of plant, soil, and animal science; studying and modeling the significance of humankind's interrelationship with soil, water, and air; and participating in Future Farmers of America (FFA) activities.

Biosystems Technology 4

Course Code	5696
Recommended Maximum Enrollment	20
Grade Level	12
Credits	1 (120 hours)
Prerequisite	Agricultural and Biosystems Science, Biosystems Mechanics and Engineering and Biosystems Technology 3
Method of Delivery	F-2-F, Hybrid

The Biosystems Technology 4 course introduces the major unit operations and technology used in bioprocessing, including heat exchangers, bioreactors, pumps, and cell/product separation systems. The content directly expands upon information and material introduced in the Agricultural and Biosystems Science and Biosystems Mechanics and Engineering courses. Emphasis is placed on the role of agriculture in our society and the importance of agriculture to the welfare of the world. Basic personal and community leadership and laboratory safety are included. Each student is required to design and participate in a supervised agricultural experience. Typical hands-on learning experiences include performing basic principles of plant, soil, and animal science; studying and modeling the significance of humankind's interrelationship with soil, water, and air; and participating in Future Farmers of America (FFA) activities.

Biosystems Technology Career Development 1

Course Code	5693
Recommended Maximum Enrollment	20
Grade Level	9, 10, 11
Credits	2 (240 hours)
Prerequisite	None
Method of Delivery	F-2-F, Hybrid

Biosystems Technology Career Development 1 is designed to teach essential concepts and understanding related to skills required to pursue a career in the biotechnology field. Emphasis is placed on scientific research and development (R&D) and how it can be used to create future advancements in Agriculture. In addition, the course teaches basic mechanical and engineering skills and their application to scientific research. Basic principles of plant and animal science as well as the role of agriculture in our society and the importance of agriculture to the welfare of the world are also included. Basic personal and community leadership and safety practices are included, and each student is required to design and participate in a supervised agricultural experience.

Biosystems Technology Career Development 2

Course Code	5694
Recommended Maximum Enrollment	20
Grade Level	11, 12
Credits	2 (240 hours)
Prerequisite	Biosystems Technology Career Development 1
Method of Delivery	F-2-F, Hybrid

The Biosystems Technology Career Development 2 course expands upon information and material introduced in the Level 1 course. Content focuses on biological and engineering sciences important to the bioprocessing and biofuels industry, including microbial concepts, reactor design, and laboratory techniques inherent. Emphasis is placed on the role of agriculture in our society and the importance of agriculture to the welfare of the world. Basic personal and community leadership and laboratory safety are included as a part of the instructional program, and each student is required to design and participate in a supervised agricultural experience.

Cattle Production

Course Code	5646
Recommended Maximum Enrollment	20
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	Agricultural Science and Technology or Agricultural and Biosystems Science
Method of Delivery	F-2-F, Hybrid

This Cattle Production course is designed to teach technical knowledge and skills for entry-level positions in an animal production enterprise by developing competencies concerning the selection, breeding, physiology, nutrition, health, housing, feeding, and marketing of cattle. Typical hands-on instructional experiences include the principles and practices essential in the production and management of cattle and cattle products for economic, recreational, and therapeutic uses; participation in personal and community leadership development activities; planning and implementation of a relevant work-based learning transition experience; and participation in Future Farmers of America (FFA) activities.

Environmental and Natural Resources Management

Course Code	5626
Recommended Maximum Enrollment	20
Grade Level	9, 10
Credits	1 (120 hours)
Prerequisite	None
Method of Delivery	F-2-F, Hybrid

Environmental and Natural Resource Management is the introductory course for the Environmental and Natural Resources Career Pathway. It is a combination of subject matter and planned learning experiences on the principles involved in the conservation and/or improvement of natural resources such as air, soil, water, land, forest, and wildlife for economic and recreational purposes. Instruction also emphasizes such factors as the establishment, management, and operation of land for recreational purposes. Typical learning activities include constructing a model watershed; identifying and/or measuring the levels of air, water, noise, and solid waste pollution in a selected site; participating in hands-on experiences with site analysis; evaluating competing interests; and analyzing biological and physical aspects of the environment and environment-related issues including methods of abating and controlling pollution. Students participate in personal and community leadership development activities, plan and implement a relevant work-based learning transition experience and participate in Future Farmers of America (FFA) activities.

Environmental and Natural Resources Management for the Workplace 1

Course Code	5628
Recommended Maximum Enrollment	20
Grade Level	9, 10, 11
Credits	1 (120 hours)
Prerequisite	None
Method of Delivery	F-2-F, Hybrid

Environmental and Natural Resource Management for the Workplace 1 is the introductory course for the Environmental and Natural Resources Career Pathway. It is a combination of subject matter and planned learning experiences on the principles involved in the conservation and/or improvement of natural resources such as air, soil, water, land, forest, and wildlife for economic and recreational purposes. Instruction also emphasizes such factors as the establishment, management, and operation of land for recreational purposes. Typical learning activities include constructing a model watershed; identifying and/or measuring the levels of air, water, noise, and solid waste pollution in a selected site; participating in hands-on experiences with site analysis; evaluating competing interests; and analyzing biological and physical aspects of the environment and environment-related issues including methods of abating and controlling pollution. Students participate in personal and community leadership development activities, plan and implement a relevant work-based learning transition experience and participate in Future Farmers of America (FFA) activities.

Environmental and Natural Resources Management for the Workplace 2

Course Code	5629
Recommended Maximum Enrollment	20
Grade Level	11, 12
Credits	2 (240 hours)
Prerequisite	Environmental and Natural Resources Management for the Workplace 1
Method of Delivery	F-2-F, Hybrid

Environmental and Natural Resources Management for the Workplace 2 is the second level course designed for programs in the Environmental Natural Resources Career Pathway. It is a combination of subject matter and planned learning experiences on the principles of conservation and/or improvement of forest and wildlife resources for economic and recreational purposes. Instruction also emphasizes such factors as the establishment, management, and operation of land for recreational purposes. Typical forestry hands-on instructional activities include experiences in assessing environmental factors affecting forest growth; cruising timber; planting trees; managing an established forest; selecting, grading, and marketing forest raw materials for converting into a variety of consumer goods; harvesting timber or pulpwood; operating and maintaining equipment; and managing forests for multiple purpose uses such as game preserves and recreation. Typical wildlife management hands-on instructional activities include experiences in analyzing problems and developing site plans, including the essential elements, concepts, and skills related to wildlife management; understanding basic ecological concepts; implementing habitat management practices; identifying wildlife and fish species; and analyzing policies, laws, and regulations and using natural resources for outdoor recreation. Students also participate in personal and community leadership development activities, plan and implement a relevant work-based learning transition experience and participate in Future Farmers of America (FFA) activities.

Equine Science

Course Code	5679
Recommended Maximum Enrollment	20
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	Agricultural Science and Technology or Agricultural and Biosystems Science
Method of Delivery	F-2-F, Hybrid

Equine Science teaches essential concepts and provides practical experience related to the care taking and production of horses. Instruction emphasizes knowledge and understanding of the importance of maintaining, selecting, and managing horses. Basic methods and safety techniques are included in this course. Typical instructional activities include hands-on experiences in saddling, bridling, grooming, and judging horses; feeding and health techniques; and housing design.

Equipment Operation and Maintenance

Course Code	5621
Recommended Maximum Enrollment	20
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	One of the following courses: Agricultural Science and Technology, Agricultural Mechanics and Technology, Environmental and Natural Resources Management, Introduction to Horticulture, or Agricultural Biosystems Science (depending on the pathway)
Method of Delivery	F-2-F, Hybrid

Equipment Operation and Maintenance teaches students how to operate and maintain equipment commonly used in the agricultural industry. It includes equipment used in four of the Agriculture, Food and Natural Resources pathways: Horticulture, Plant and Animal Systems, Environmental and Natural Resources Management, and Agricultural Mechanics and Technology. Typical instructional activities include hands-on experiences with agricultural power units; participating in personal and community leadership development activities; planning and implementing a relevant work-based learning transition experience; and participating in Future Farmers of America (FFA) activities.

Farm Animal Production

Course Code	5647
Recommended Maximum Enrollment	20
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	Agricultural Science and Technology or Agricultural Biosystems Science
Method of Delivery	F-2-F, Hybrid

Farm Animal Production teaches technical knowledge and skills for entry-level positions in an animal production enterprise by developing students' competency in the selection, breeding, physiology, nutrition, health, housing, feeding, and marketing of farm animals. Typical instructional activities include hands-on experiences with the principles and practices essential in the production and management of farm animals and farm animal products for economic, recreational, and therapeutic uses; participating in personal and community leadership development activities; planning and implementing a relevant work-based learning transition experience; and participating in Future Farmers of America (FFA) activities.

Floriculture

Course Code	5634
Recommended Maximum Enrollment	20
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	Introduction to Horticulture
Method of Delivery	F-2-F, Hybrid

Floriculture teaches technical knowledge and skills for entry-level positions in the production, processing, and distribution of flowers, foliage, and related plant materials, including best management practices in field and greenhouse production of flowers and related plant materials and the arrangement of plant materials for ornamental purposes. Typical instructional activities include hands-on experiences with planning, designing, and growing representative flower crops; preparing and analyzing growing medium; tissue culture; alternative propagation methods; greenhouse management practices including environmental controls; participating in personal and community leadership development activities; planning and implementing a relevant work-based learning transition experience; and participating in Future Farmers of America (FFA) activities. The instructor selects units of instruction based on a local needs assessment.

Food Processing

Course Code	5657
Recommended Maximum Enrollment	30
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	Agricultural Science and Technology or Agricultural and Biosystems Science
Method of Delivery	F-2-F, Hybrid

Food Processing generally prepares individuals to process food and nonfood products and to inspect those products preparatory to marketing. The course also includes instruction in the characteristics and properties of agricultural products and of agriculture-related processing techniques and skills (including quality control and mechanical operations involved in marking, grading, inspecting, packaging, storing, and marketing). Typical learning activities include cutting meat; packaging, canning, testing, and grading food products; participating in Future Farmers of America (FFA) contests or other club activities; and planning and conducting a supervised practice program or occupational work experience program related to agricultural products.

Forestry

Course Code	5642
Recommended Maximum Enrollment	20
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	Environmental and Natural Resources Management
Method of Delivery	F-2-F, Hybrid

Forestry teaches technical knowledge and skills for entry-level positions in the production, protection, and management of timber and specialty forest resources. Typical instructional activities include hands-on experiences in assessing environmental factors affecting forest growth; cruising timber; planting trees; managing an established forest; selecting, grading, and marketing forest raw materials for converting into a variety of consumer goods; harvesting timber or pulpwood; operating and maintaining equipment; and managing forests for multiple purpose uses such as game preserves and recreation. Students participate in personal and community leadership development activities, plan and implement a relevant work-based learning transition experience and participate in Future Farmers of America (FFA) activities.

Golf Course Technology

Course Code	5667
Recommended Maximum Enrollment	20
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	Introduction to Horticulture
Method of Delivery	F-2-F, Hybrid

Golf Course Technology is designed to qualify the students completing the program for job entry into golf course and turf fields, as well as to continue advanced training post high school. A combination of subject matter and activities teaches technical knowledge and skills for entry-level positions. Typical instructional activities include hands-on experiences with agricultural power units, the planning and selection of materials, the mechanical practices associated with irrigation and water conservation, erosion control, participation in personal and community leadership development activities, planning and implementation of a relevant supervised agricultural experience, and participation in Future Farmers of America (FFA) activities.

Horticulture for the Workplace 1

Course Code	5652
Recommended Maximum Enrollment	20
Grade Level	9, 10, 11
Credits	2 (240 hours)
Prerequisite	None
Method of Delivery	F-2-F, Hybrid

Horticulture for Workplace 1 includes organized subject matter and practical experiences related to the culture of plants used principally for ornamental or aesthetic purposes. Instruction emphasizes knowledge and understanding of the importance of establishing, maintaining, and managing ornamental horticulture enterprises.

Horticulture for the Workplace 2

Course Code	5653
Recommended Maximum Enrollment	20
Grade Level	11, 12
Credits	2 (240 hours)
Prerequisite	Horticulture for the Workplace 1
Method of Delivery	F-2-F, Hybrid

Horticulture for the Workplace 2 is the second level course designed for programs involved in the Horticulture Career Pathway. The course is a combination of subject matter and planned learning experiences on the principles involved in the related to the culture of plants used principally for ornamental or aesthetic purposes. Instruction emphasizes knowledge and understanding of the importance of establishing, maintaining, and managing ornamental horticulture enterprises.

Introduction to Horticulture

Course Code	5650
Recommended Maximum Enrollment	20
Grade Level	9, 10
Credits	1 (120 hours)
Prerequisite	None
Method of Delivery	F-2-F, Hybrid

The Introduction to Horticulture course is designed to be an introduction to the Horticulture pathway. It is recommended as a prerequisite for all other horticulture courses. This course includes organized subject matter and practical experiences related to the culture of plants used principally for ornamental or aesthetic purposes. Instruction emphasizes knowledge and understanding of the importance of establishing, maintaining, and managing ornamental horticulture enterprises.

Introduction to Veterinary Science

Course Code	5613
Recommended Maximum Enrollment	20
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	Agricultural Science and Technology or Agricultural Biosystems Science
Method of Delivery	F-2-F, Hybrid

In this advanced animal science course, students will explore the field of veterinary medicine. Students will study the role of a veterinarian and veterinary technician in the diagnosis and treatment of animal diseases. Topics to be discussed include: veterinary terminology, anatomy and physiology, pathology, genetics, handling and restraint, and physical examinations along with common surgical skills. Students will engage in a variety of laboratory activities and will participate in shadowing and/or other work-based learning experiences.

Landscape Technology

Course Code	5670
Recommended Maximum Enrollment	20
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	Introduction to Horticulture
Method of Delivery	F-2-F, Hybrid

The course in Landscape Technology is designed to qualify the student completing the course for job entry into landscaping fields or to continue advanced training in post high school education. A combination of subject matter and activities is designed to teach technical knowledge and skills for entry-level positions in selling, selecting, and servicing.

Nursery, Greenhouse, and Garden Center Technology

Course Code	5672
Recommended Maximum Enrollment	20
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	Introduction to Horticulture
Method of Delivery	F-2-F, Hybrid

The course in Nursery, Greenhouse, and Garden Center Technology includes organized subject matter and practical experiences related to the operation and management of nursery, greenhouse, or a garden center. Instruction emphasizes knowledge and understanding of the importance of establishing, maintaining, and managing “green industry” enterprises.

Outdoor Recreation

Course Code	5602
Recommended Maximum Enrollment	20
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	Environmental and Natural Resources Management
Method of Delivery	F-2-F, Hybrid

The Outdoor Recreation course is a combination of subject matter and planned learning experiences on the principles involved in outdoor safety, planning outdoor recreational activities, designing parks and special use areas, and outdoor recreational resources on public lands. Instruction also emphasizes such factors as the establishment, management, and operation of land for recreational purposes.

Small Animal Care

Course Code	5612
Recommended Maximum Enrollment	20
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	Agricultural Science and Technology or Agricultural and Biosystems Science
Method of Delivery	F-2-F, Hybrid

The Small Animal Care course is designed to teach technical knowledge and skills for occupations in the pet industry or the companion animal industry. Skills also relate to the veterinarian or the veterinarian technician career field.

Soil and Water Conservation

Course Code	5627
Recommended Maximum Enrollment	20
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	One of the following courses: Agricultural Science and Technology, Agricultural Mechanics and Technology, Environmental and Natural Resources Management, or Agricultural Biosystems Science (depending on the pathway)
Method of Delivery	F-2-F, Hybrid

The Soil and Water Conservation course is a combination of subject matter and planned learning experiences on the principles involved in the conservation and/or improvement of soil and water resources for economic and recreational purposes.

Soils and Soilless Research

Course Code	5630
Recommended Maximum Enrollment	20
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	One of the following courses: Agricultural Science and Technology, Environmental and Natural Resources Management, Introduction to Horticulture, or Agricultural Biosystems Science (depending on the pathway)
Method of Delivery	F-2-F, Hybrid

Soils and Soilless Research is designed to teach students the science involved in growing crops in both soil and soilless production systems. Students learn the importance of soil chemistry and composition as it relates to the growth of economically important crops. Students investigate common agricultural practices as well as alternative methods for growing crops to include hydroponic techniques. Students are also introduced to experimental research using the principles of experimental design.

Sports Turf Management

Course Code	5655
Recommended Maximum Enrollment	20
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	Introduction to Horticulture
Method of Delivery	F-2-F, Hybrid

Sports Turf Management course is designed to teach technical knowledge and skills for entry-level positions in the Sports Turf Management career field. The principles and practices involved in establishing, managing, and maintaining grassed areas for recreational purposes are studied.

Turf and Lawn Management

Course Code	5654
Recommended Maximum Enrollment	20
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	Introduction to Horticulture
Method of Delivery	F-2-F, Hybrid

The Introduction to Horticulture course is designed to be an introduction to the Horticulture pathway. It is recommended as a prerequisite for all other horticulture courses. This course includes organized subject matter and practical experiences related to the culture of plants used principally for ornamental or aesthetic purposes. Instruction emphasizes knowledge and understanding of the importance of establishing, maintaining, and managing ornamental horticulture enterprises.

Wildlife Management

Course Code	5674
Recommended Maximum Enrollment	20
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	Environmental and Natural Resources Management
Method of Delivery	F-2-F, Hybrid

The Wildlife Management course is designed to be an introductory course for the Environmental and Natural Resources pathway. The course is a combination of subject matter and planned learning experiences on the principles involved in the conservation and/or improvement of natural resources such as air, soil, water, land, forest, and wildlife for economic and recreational purposes. Instruction also emphasizes such factors as the establishment, management, and operation of land for recreational purposes.

***Agriculture, Food & Natural Resources Internship, Work-Based Credit**

Course Code	5690
Recommended Maximum Enrollment	NA
Grade Level	12
Credits	1 (120 hours)
Prerequisite	Completion of two (2) CTE courses/units within a program
Method of Delivery	F-2-F, Hybrid

The Agriculture, Food & Natural Resources Internship is a structured, work-based credit bearing course that is taken as a component of state recognized Career and Technical Education (CTE) Classification of Instructional Programs (CIP)-coded programs for CTE students. Each work-based learning (credit-bearing) course has an assigned CTE course code, and guidelines must be followed to award one Carnegie unit of credit upon successful completion of the course.

***This course will not count as the third unit for a three-unit completer pathway nor a fourth unit in a four-unit completer pathway.**

Architecture & Construction Cluster

Building Construction Cluster 1, 2, 3, 4

Course Codes	6060, 6061, 6062, 6063
Recommended Maximum Enrollment	16
Grade Level	9, 10, 11, 12
Credits	1 (120 hours), 2 (240 hours) per course code
Prerequisite	Algebra 1; Courses taken sequentially
Method of Delivery	F-2-F, Hybrid

The Construction Technology program offers students practical training in the entire range of residential and light commercial building techniques including estimating building costs, carpentry, cabinetmaking, residential wiring, blueprint reading, brick masonry, construction, building codes, and safety. Classroom knowledge is enhanced through multiple hands-on projects. Successful completion of program curriculum will provide students with the opportunity to become eligible for industry-recognized credentials and certifications. One computer per student with internet access should be available.

Cabinetmaking 1, 2, 3, 4

Course Codes	6080, 6081, 6082, 6083
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours), 2 (240 hours) per course code
Prerequisite	No prerequisite for Level 1; Courses taken sequentially
Method of Delivery	F-2-F, Hybrid

Cabinetmaking courses provide an opportunity for students to acquire workshop, tool safety and employability skills as they practice reading and later interpreting blueprints; estimating and selecting materials; cutting and shaping stock; assembling, fastening, and installing components; and finishing surfaces. They also learn to install interior finishes, apply wood veneers and plastic laminates, finish surfaces, and transport and install cabinets. The technical, problem-solving, leadership, and creative skills learned in Cabinetmaking can be applied in industries well beyond construction trades and professions and can prepare students for lifelong learning and success.

Carpentry 1, 2, 3, 4

Course Codes	6091, 6092, 6093, 6094
Recommended Maximum Enrollment	24
Grade Level	9, 10, 11, 12
Credits	1 (120 hours), 2 (240 hours) per course code
Prerequisite	No prerequisite for Level 1; Courses taken sequentially
Method of Delivery	F-2-F, Hybrid

Carpentry courses provide information related to the building of wooden structures, enabling students to gain an understanding of wood grades and construction methods and to learn skills such as laying sills and joists; erecting sills and rafters; applying sheathing, siding, and shingles; setting doorjambs; and hanging doors. Carpentry courses may teach skills for rough construction, finish work, or both. Students learn to read blueprints, draft, use tools and machines properly and safely, erect buildings from construction lumber, perform finish work inside of buildings, and do limited cabinetwork. Carpentry courses may also include career exploration, good work habits, and employability skills.

Electricity 1, 2, 3, 4

Course Codes	6287, 6288, 6289, 6290
Recommended Maximum Enrollment	24
Grade Level	9, 10, 11, 12
Credits	1 (120 hours), 2 (240 hours) per course code
Prerequisite	No prerequisite for Level 1; Courses taken sequentially
Method of Delivery	F-2-F, Hybrid

Electricity—Comprehensive courses provide a survey of the theory, terminology, equipment, and practical experience in the skills needed for careers in the electrical field. These courses typically include AC and DC circuitry, safety, and the National Electrical Code and may cover such skills as those involved in building circuits; wiring residential, commercial, and/or industrial buildings; installing lighting, power circuits, and cables; and estimating job costs. As students progress, their projects become more complex and expansive. In these courses, safety is stressed, and a career exploration component may be offered.

Electrical Line Worker 1, 2, 3, 4

Course Codes	6305, 6306, 6307, 6308
Recommended Maximum Enrollment	24
Grade Level	9, 10, 11, 12
Credits	1 (120 hours), 2 (240 hours) per course code
Prerequisite	No prerequisite for Level 1; Courses taken sequentially
Method of Delivery	F-2-F, Hybrid

The Electrical Line Worker program prepares students to enter the electric utility industry as an apprentice with a broad understanding of the skills, knowledge, safe work practices and physical ability required to perform line work. Students receive classroom and field training in math, electrical circuit analysis, power systems including Ohm's Law, AC and DC theory and analysis, generation, transmission and distribution of electrical energy and transformer theory. Climbing techniques are strongly emphasized. Safety and teamwork are demonstrated and emphasized in all phases of the training.

Home Smart Systems Technology

Course Code	5330
Recommended Maximum Enrollment	16
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	None
Method of Delivery	F-2-F, Hybrid

Home Smart Systems Technology is a course that prepares students for careers in designing, installing, and troubleshooting integrated smart home systems including environmental, security and surveillance, audio and video, and communications, in the modern home. One computer per student with internet access should be available.

HVAC Technology 1, 2, 3, 4

Course Codes	6003, 6004, 6005, 6006
Recommended Maximum Enrollment	24
Grade Level	9, 10, 11, 12
Credits	1 (120 hours), 2 (240 hours) per course code
Prerequisite	No prerequisite for Level 1; Courses taken sequentially
Method of Delivery	F-2-F, Hybrid

HVAC Technology courses offer specialized training related to the design, installation, and repair of air conditioning systems for residential and commercial use. These courses may emphasize the theory and design of electrical, electronic, mechanical, and pneumatic control systems used in air conditioning systems; they might also (or instead) focus on procedures used in troubleshooting, servicing, and installing components of air conditioning systems.

Introduction to Construction

Course Code	6001
Recommended Maximum Enrollment	24
Grade Level	9, 10, 11, 12
Credits	1 (120 hours)
Prerequisite	None
Method of Delivery	F-2-F, Hybrid

Construction technology provides students with an understanding of how construction impacts their lives, both socially and professionally. Students will explore and demonstrate an understanding of five elements of construction: Career Opportunities, Design, Measurements, Tools, and Materials.

Masonry 1, 2, 3, 4

Course Codes	6250, 6251, 6252, 6253
Recommended Maximum Enrollment	24
Grade Level	9, 10, 11, 12
Credits	1 (120 hours), 2 (240 hours) per course code
Prerequisite	No prerequisite for Level 1; Courses taken sequentially
Method of Delivery	F-2-F, Hybrid

Masonry courses enable students to learn to construct interior and exterior walls, columns, doorways, window openings, fireplaces, chimneys, and foundations from brick and concrete block. Along with other activities, students may mix and spread cement and mortar, read blueprints and plans, and estimate materials needed for a project. Other topics may also include how to layout buildings on footings and how to establish grades using a surveying transit.

Plumbing 1, 2, 3, 4

Course Codes	6280, 6281, 6282, 6283
Recommended Maximum Enrollment	24
Grade Level	9, 10, 11, 12
Credits	1 (120 hours), 2 (240 hours) per course code
Prerequisite	No prerequisite for Level 1; Courses taken sequentially
Method of Delivery	F-2-F, Hybrid

Plumbing courses provide students with instruction in installing waste and vent systems, water and gas pipes, trim, and fixtures. Skills taught include cutting and joining various types of pipe (for instance, steel or plastic) using various methods (cement, seat method, and so on).

***Architecture & Construction Internship, Work-Based Credit**

Course Codes	6690
Recommended Maximum Enrollment	NA
Grade Level	11, 12
Credits	1 (120 hours)
Prerequisite	Completion of two (2) CTE courses/units within a program
Method of Delivery	F-2-F

The Architecture and Construction Internship is a structured, work-based credit bearing course that is taken as a component of state recognized Career and Technical Education (CTE) Classification of Instructional Programs (CIP)-coded programs for CTE students. Each work-based learning (credit-bearing) course has an assigned CTE course code, and guidelines must be followed to award one Carnegie unit of credit upon successful completion of the course.

***This course will not count as the third unit for a three-unit completer pathway nor a fourth unit in a four-unit completer pathway.**

Arts, A/V Technology & Communications Cluster

Fashion Design and Apparel Construction 1

Course Code	5710
Recommended Maximum Enrollment	20
Grade Level	10, 11, 12
Credits	1 (120 hours), 2 (240 hours)
Prerequisite	None
Method of Delivery	F-2-F, Hybrid

Ready to create your own look? Tired of having clothes that don't fit? Make a skirt or vest out of your dad's old neckties. Open the world of fashion from your own closet. Fashion Design and Apparel Construction 1 focuses on the study of the fashion and garment industry with emphasis on the basics of design and construction. Students will develop a global view and weigh design decisions within the parameters of ecological, socio-economic, and cultural contents. Concepts are applied with hands-on learning experiences as students study career pathways, textiles, fashion design, apparel construction, consumer behavior, products, and materials of the fashion industry. Projects are integrated throughout the course work and at least one garment will be completed. South Carolina standards for English/language arts, mathematics, science, social studies, and visual arts are reinforced. The Family and Consumer Sciences student organization Family, Career, and Community Leaders of America (FCCLA) greatly enhances this curriculum.

Fashion Design and Apparel Construction 2

Course Code	5711
Recommended Maximum Enrollment	20
Grade Level	10, 11, 12
Credits	1 (120 hours), 2 (240 hours)
Prerequisite	Fashion Design and Apparel Construction 1
Method of Delivery	F-2-F, Hybrid

Design and make your own prom dress or outfit! Professionalism is showcased as preparations are made to enter the world of fashion design and apparel construction. Unfold the world of fashion merchandising and marketing. The skills of fashion design and apparel construction are refined. Creativity is on the runway in this hands-on course. Emphasis is placed on the development of problem solving, decision-making, and technological applications in a real-world context. South Carolina standards for English/language arts, mathematics, science, social studies, and visual arts are reinforced. The Family and Consumer Sciences student organization Family, Career, and Community Leaders of America (FCCLA) greatly enhances this curriculum.

Interior Design 1

Course Code	5455
Recommended Maximum Enrollment	20
Grade Level	10, 11, 12
Credits	1 (120 hours), 2 (240 hours)
Prerequisite	None
Method of Delivery	F-2-F, Hybrid

Interior Design 1 focuses on the study of interior planning with emphasis on the basics of design. Students will develop a global view and weigh design decisions within the parameters of ecological, socio-economic, and cultural contents. Concepts are applied with hands-on learning experiences as students study career paths, design, products, materials, and professionalism. Projects are integrated throughout the course work. Computer access is strongly recommended for this course. The Family and Consumer Sciences student organization Family, Career, and Community Leaders of America (FCCLA) greatly enhances this curriculum.

Interior Design 2

Course Code	5456
Recommended Maximum Enrollment	20
Grade Level	10, 11, 12
Credits	1 (120 hours), 2 (240 hours)
Prerequisite	Interior Design 1
Method of Delivery	F-2-F, Hybrid

Interior Design 2 focuses on design applications incorporating business basics of the design industry. Students will have an opportunity to develop advanced skills by learning about green design concepts and the principles and theories of sustainability as they pertain to design decisions, i.e. building materials, methods, systems, and occupants. Course content consists of career development, industry trends, design applications, client relations, presentation techniques, and business practices. Job shadowing, mentorships, internships, and/or apprenticeships are an integral part of this course. Portfolios and projects are integrated throughout the course work. Computer access is strongly recommended for this course. The Family and Consumer Sciences student organization Family, Career, and Community Leaders of America (FCCLA) greatly enhances this curriculum.

Architectural Design 1, 2

Course Codes	6170, 6171
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours), 2 (240 hours) per course code
Prerequisite	Courses taken sequentially
Method of Delivery	F-2-F, Hybrid, Virtual

The Architectural Design program prepares students to perform entry-level tasks under the supervision and guidance of architects and/or architectural engineers in the development and preparation of plans for residential and/or commercial buildings. Instruction is given in design technology and techniques, computer-aided design, zoning laws, building codes, cost planning, material requirements, styling, and client preferences. Upon successful completion of the architectural design program, students will be prepared for postsecondary education and entry-level architectural-related careers.

Digital Art and Design 1, 2, 3, 4

Course Codes	6120, 6121, 6122, 6123
Recommended Maximum Enrollment	24
Grade Level	9 (6120 with Teacher recommendations or approval), 10–11 (6120, 6121), 11–12 (6122, 6123)
Credits	1 (120 hours), 2 (240 hours) per course code
Prerequisite	No prerequisite for Level 1; Courses taken sequentially
Method of Delivery	F-2-F, Hybrid, Virtual

The ever changing and global technological advancements offer newer and broader opportunities in the creative industry. The Digital Art and Design program prepares students for a multitude of careers in the graphic design field. This program provides instruction in layout, computer design, electronic art, color enhancement, and digital photography. Students use design concepts, principles, and processes that meet client expectations using Adobe Creative Suite Software: Photoshop, Illustrator, and InDesign. Students will have the opportunity to attain Adobe Certified Associate certification. Career development and employability skills are the foundation of all career and technical education. Students will compile their works for inclusion in a portfolio, for use in this program of study, the workforce, or postsecondary education.

Introduction to Graphic Communications and Graphic Communications 1, 2, 3, 4

Course Codes	5205, 6200, 6201, 6202, 6203
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours), 2 (240 hours) per course code
Prerequisite	No prerequisite for Level 1; Courses taken sequentially
Method of Delivery	F-2-F, Hybrid, Virtual

Graphic Communications competencies require that students are competent in their overall understanding of the industry and its major operations, and have the fundamental measurement, math, and interpersonal skills needed for starting a career. The competencies are broken into 11 subsections: introduction, digital file preparation, image capture, color theory, digital file output, press operations, bindery operations, measurement, safety and first aid, basic math, and job application and interpersonal skills. All competencies are theory-based and require students to list, describe, identify, and/or calculate production-related issues, rather than actually demonstrate performance.

Mechanical Design 1, 2

Course Codes	6172, 6173
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours), 2 (240 hours) per course code
Prerequisite	No prerequisite for Level 1; Courses taken sequentially
Method of Delivery	F-2-F, Hybrid, Virtual

The Mechanical Design program prepares students to perform entry-level tasks under the supervision of an experienced drafter or engineer. Instruction includes safety, basic drafting techniques, geometric constructions, sketching, shape description, size description, drawing conventions, computer-aided design, manufacturing processes, applied geometry, and technical illustration. Upon successful completion of the Mechanical Design program, students will be prepared for postsecondary education and entry-level mechanical-related careers.

Media Technology 1

Course Codes	6124
Recommended Maximum Enrollment	24
Grade Level	9
Credits	1 (120 hours), 2 (240 hours) per course code
Prerequisite	No prerequisite
Method of Delivery	F-2-F, Hybrid, Virtual

Media Technology 1 explores the general field of communications focused primarily on media production industries. Students will get hands-on experience in basic production techniques for audio and video. They will work collaboratively writing, producing, directing, and editing projects using industry-standard software and equipment. Safety is emphasized in this course and students will have the opportunity to acquire an industry-recognized safety certification. Students will also learn about related fields such as graphic design, broadcast journalism, animation, sound design and engineering, special effects, online media development, marketing, and corporate communications.

Media Technology 2

Course Codes	6125
Recommended Maximum Enrollment	24
Grade Level	9, 10, 11, 12
Credits	1 (120 hours), 2 (240 hours) per course code
Prerequisite	Media Technology 1
Method of Delivery	F-2-F, Hybrid, Virtual

Media Technology 2 students continue to explore the general field of communications focused primarily on media production industries. Students will get hands-on experience in production techniques for audio and video. They will work collaboratively writing, producing, directing, and editing projects using industry standard software and equipment. Safety is emphasized in this course and students will have the opportunity to acquire an industry-recognized safety certification. Students will also learn about related fields such as graphic design, broadcast journalism, animation, sound design and engineering, special effects, online media development, marketing, and corporate communications.

Media Technology 3

Course Codes	6126
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours), 2 (240 hours) per course code
Prerequisite	Media Technology 2
Method of Delivery	F-2-F, Hybrid, Virtual

Media Technology 3 is the third course in the Media Technology program. In this course, students continue their in-depth exploration of the general field of communications focused primarily on media production industries. Students will get hands-on experience in production techniques for audio and video. They will work collaboratively writing, producing, directing, and editing increasingly complex projects using industry-standard software and equipment. A professional media production skill set is emphasized in this course and students are expected to consistently apply these skills to their projects. They will create and refine the necessary professional materials necessary for entry level employment in the media industries. Lastly, students will have the opportunity to acquire industry-recognized certifications.

Media Technology 4

Course Codes	6127
Recommended Maximum Enrollment	24
Grade Level	11, 12
Credits	1 (120 hours), 2 (240 hours) per course code
Prerequisite	Media Technology 3
Method of Delivery	F-2-F, Hybrid, Virtual

Media Technology 4 is the final course in the Media Technology program. In this course, students are expected to demonstrate mastery of media production skill sets and consistently apply these skills to their projects. They will work both independently and collaboratively to produce advanced level projects using industry-standard software and equipment as well as emerging technologies. This course will incorporate work-based learning opportunities, when appropriate and where available. Students are expected to finalize professional materials necessary for entry-level employment in the media industries including attainment of industry-recognized certifications.

***Arts, A/V Technology & Communications Internship, Work-Based Credit**

Course Codes	5290
Recommended Maximum Enrollment	NA
Grade Level	11, 12
Credits	1 (120 hours)
Prerequisite	Completion of two (2) CTE courses/units within a program
Method of Delivery	F-2-F, Hybrid

Arts, Audio-Video Technology and Communications Internship is a structured, work-based credit bearing course that is taken as a component of state recognized Career and Technical Education (CTE) Classification of Instructional Programs (CIP)-coded programs for CTE students. Each work-based learning (credit-bearing) course has an assigned CTE course code, and guidelines must be followed to award one Carnegie unit of credit upon successful completion of the course.

***This course will not count as the third unit for a three-unit completer pathway nor a fourth unit in a four-unit completer pathway.**

Middle School – Business Management & Administration Cluster

Computer Applications

Course Code	2702
Recommended Maximum Enrollment	24
Grade Level	7, 8
Credits	None
Prerequisite	Digital Literacy
Method of Delivery	F-2-F, Hybrid, Virtual

The Computer Applications course provides introductory instruction in Microsoft 365 applications to include MS Word, MS Excel, and MS PowerPoint. Students will learn the features and benefits of the applications to apply their knowledge in various problem-based activities and future career demands. In addition, students are engaged in applying key critical thinking skills and the practice of ethical and appropriate behavior for the responsible use of technology.

Digital Literacy

Course Code	1853, 2853
Recommended Maximum Enrollment	24
Grade Level	6, 7, 8
Credits	None
Prerequisite	None
Method of Delivery	F-2-F, Hybrid, Virtual

Digital Literacy is designed to equip students with many of the needed digital and computer literacy skills necessary to prepare for creating, finding, and evaluating data and information. Students will be exposed to a broad range of computer technology along with a working knowledge of computer software and hardware. Students benefit from an understanding of a wide range of applications (e.g., document processing, presentations, spreadsheets, and web-based resources). Safety, use of technology, social, emotional, career, as well as critical thinking and problem-solving skill attainment are embedded throughout the course.

Google Basics

Course Code	2704
Recommended Maximum Enrollment	24
Grade Level	7, 8
Credits	None
Prerequisite	None
Method of Delivery	F-2-F, Hybrid, Virtual

The Google Basics course introduces students to basic G Suite tools and applications. Students will focus on collaboration, communication, and productivity through the completion of real world, problem-based activities, and projects. In addition, students will apply key critical thinking skills, and practice ethical and appropriate behavior for the responsible use of technology.

Keyboarding

Course Code	2706
Recommended Maximum Enrollment	24
Grade Level	7, 8
Credits	None
Prerequisite	None
Method of Delivery	F-2-F, Hybrid, Virtual

The Keyboarding course is designed for middle school students to master the skill of entering alphabetic, numeric, and symbolic information on a keyboard and a ten-key pad using the touch method of key stroking. Emphasis is placed on development of accuracy and speed, proper techniques, and correct finger positions. Students will further develop and enhance touch skills for entering information using a keyboard to compose and produce personal, educational, and professional documents. Digital literacy, composition, and language skills are embedded throughout the course.

Multimedia Basics

Course Code	2703
Recommended Maximum Enrollment	24
Grade Level	7, 8
Credits	None
Prerequisite	None
Method of Delivery	F-2-F, Hybrid, Virtual

The Multimedia Basics course introduces the students to the multimedia industry's concepts, processes, and applications which utilize text, graphics, animation, audio, and video. Students will design, develop, and create various multimedia projects incorporating collaboration, communication, and productivity.

High School – Business Management & Administration Cluster

Administrative Support Technology

Course Code	5122
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	Keyboarding proficiency
Method of Delivery	F-2-F, Hybrid, Virtual

Administrative Support Technology, a required course in the Administrative Services program, is designed to provide an in-depth review of the major responsibilities and tasks performed in the administrative support position. The objectives of the course are to enhance technology, decision-making, and communication skills; solve business-oriented problems; manage processes and procedures found within various types of organizations; and demonstrate proficient supervisory, management, finance, and professional skills.

Advanced Business Law

Course Code	5049
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	Business Law
Method of Delivery	F-2-F, Hybrid, Virtual

Advanced Business Law develops a greater understanding of the U.S. legal system. Students in this course will expand their knowledge of business law concepts to include tort, criminal, and contract law; ethics and professional responsibilities; and legal writing and analysis. This advanced class will also focus on developing research methods, strategies, and analysis.

Business Data Applications

Course Code	5021
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	Algebra 1
Method of Delivery	F-2-F, Hybrid, Virtual

The collection, manipulation, storage, and retrieval of data has become an important tool and indicator of business success. Decisions are made based on data analysis that impacts all parts of society. In Business Data Applications, students analyze different data sets, collect, manipulate, store, secure, and retrieve data using electronic spreadsheets and database software applications. Students use problem-solving and critical thinking skills to prepare computational artifacts which will be used to make informed decisions using a real-world approach. This course can be used to meet the South Carolina computer science graduation requirement.

Business Law

Course Code	5044
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	None
Method of Delivery	F-2-F, Hybrid, Virtual

Business Law develops an understanding of legal rights and responsibilities in personal and business law with applications applied to everyday roles as consumers, citizens, and workers. The student will understand the American legal system, courts/court procedures, criminal justice systems, torts, the civil justice system, oral and written contracts, sales contracts and warranties, consumer protection, social responsibility, and ethics.

Business Principles and Management

Course Code	5092
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	Any Digital Literacy course
Method of Delivery	F-2-F, Hybrid, Virtual

In the Business Principles and Management course, students will develop a thorough understanding of the role and activities of businesses, and in the many activities, problems, and decisions that are essential to the management of a successful business. Students will analyze characteristics of businesses, social and ethical environments, business economics, international business, forms and types of business, ethical and legal responsibilities, communication, decision-making, leadership, personnel, professional development, and related careers. By gaining an understanding of these areas, students will be prepared to enhance the business decisions of tomorrow. This course prepares students for the Entrepreneurship certification offered by Certiport.

Digital Multimedia

Course Code	5030
Recommended Maximum Enrollment	24
Grade Level	9, 10, 11, 12
Credits	1 (120 hours)
Prerequisite	None
Method of Delivery	F-2-F, Hybrid, Virtual

The Digital Multimedia course covers multimedia concepts, processes, and applications utilizing text, graphics, animation, audio, and video. Students will design, develop, and create various collaborative and interactive multimedia projects culminating with a career portfolio.

Digital Publication Design

Course Code	5176
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	None
Method of Delivery	F-2-F, Hybrid, Virtual

The Digital Publication Design course allows students to use their creativity to produce business and personal publications. Students create, format, illustrate, design, edit/revise, and print publications including newsletters, flyers, brochures, reports, advertising materials, catalogs, posters, and other publications. Students who excel have the opportunity to earn a nationally recognized Adobe certification.

Digital Technologies

Course Code	5180
Recommended Maximum Enrollment	24
Grade Level	9, 10, 11, 12
Credits	1 (120 hours)
Prerequisite	None
Method of Delivery	F-2-F, Hybrid, Virtual

Digital Technologies introduces students to new and emerging technologies that are impacting the way we utilize information when accessing computers and other technology devices. With the use of tablets, iPads, Smartphones, and other digital devices, students will design, develop, and create projects using speech recognition software, mobile applications, and online collaborative tools for personal and business applications. Students' work will be showcased in an e-portfolio.

Digital Workplace Applications

Course Code	5020
Recommended Maximum Enrollment	24
Grade Level	9, 10, 11, 12
Credits	1 (120 hours)
Prerequisite	None
Method of Delivery	F-2-F, Hybrid, Virtual

Digital Workplace Applications provides in-depth instruction in Microsoft Office applications that will lead to national certifications demonstrating career-readiness. The applications covered include MS Word, MS Excel, MS PowerPoint, and MS Access (optional), as well as collaborative tools that are used within a virtual work environment. Students will learn the features and tools for each of the application programs and apply their knowledge to various problem-based activities. In addition, students will apply key critical thinking skills and practice ethical and appropriate behavior for the responsible use of technology. Upon completion of this course, students will be prepared to earn nationally recognized industry certifications.

Entrepreneurship

Course Code	5400
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	None
Method of Delivery	F-2-F, Hybrid, Virtual

The Entrepreneurship course, one of the concentrator requirements in the General Management business program, provides students with the knowledge, skills, and experiences needed to develop an effective business plan for small business ownership. The course incorporates economics, ethics, legal aspects, business accounting, marketing, human resources, strategies for financing, and technology. Students may obtain a small business entrepreneurship certification. **This course has been vetted and can be used to meet the personal finance graduation requirement.**

Fundamentals of Business, Marketing and Finance

Course Code	5090
Recommended Maximum Enrollment	24
Grade Level	9, 10
Credits	1 (120 hours)
Prerequisite	None
Method of Delivery	F-2-F, Hybrid, Virtual

Fundamentals of Business, Marketing and Finance is designed to encourage students to pursue successful careers as entrepreneurs in business, marketing, and finance. Students will gain a basic understanding of business concepts including international business, business management and operations, financial planning, accounting fundamentals, risk management, marketing communications, and social responsibility and business ethics. This course will increase students' knowledge and skills that are utilized within business as it relates to a global society.

Fundamentals of Human Resource Management

Course Code	5093
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	None
Method of Delivery	F-2-F, Hybrid, Virtual

Fundamentals of Human Resource Management is designed to provide students with a basic understanding of the primary functions of human resources management to include recruitment, selection, training and development, compensation, and evaluation.

Fundamentals of Project Management

Course Code	5480
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	None
Method of Delivery	F-2-F, Hybrid, Virtual

The Fundamentals of Project Management curriculum is designed to introduce students to processes of initiating, planning/executing, monitoring/controlling, and closing projects. Students will learn the ten knowledge areas of Project Management - integration, scope, schedule, cost, quality, resources (human and physical), communication, risk, procurement, and stakeholder management; through projects, simulations, and work-based scenarios. Successful completion of this course will lead toward Certified Associate in Project Management certification by PMI®.

Google Applications

Course Code	5007
Recommended Maximum Enrollment	24
Grade Level	9, 10, 11, 12
Credits	1 (120 hours)
Prerequisite	None
Method of Delivery	F-2-F, Hybrid, Virtual

The Google Applications course provides in-depth instruction in the G Suite and its productivity and collaborative applications. Students will complete real world problem-based activities, projects, and collaborative works that are used in the work environment. In addition, students will apply key critical thinking skills, and practice ethical and appropriate behavior for the responsible use of technology.

Image Editing

Course Code	5340
Recommended Maximum Enrollment	24
Grade Level	9, 10, 11, 12
Credits	1 (120 hours)
Prerequisite	Fundamentals of Computing or Digital Multimedia and any Digital Literacy course
Method of Delivery	F-2-F, Hybrid, Virtual

Image editing tools are used by industry professionals to edit and enhance most images presented in magazines, newspapers, and other media. Image Editing is designed to provide students with the knowledge and skills needed to master image manipulation and photographic retouching. Students will explore the technical and artistic aspects of image editing by creating images to be used in various types of media. Successful completion of this course will prepare the student for industry certification.

International Business

Course Code	5032
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	None
Method of Delivery	F-2-F, Hybrid, Virtual

The International Business course provides students with an understanding of business operations in the global arena. Students gain an understanding of global trade, international and political culture, legal and trade agreements, importing/exporting, global finance and economics, product and service distribution, marketing, and travel. For students who wish to pursue international studies at the post-secondary level, this course provides a solid understanding of global concepts and business entrepreneurship.

Principles of Digital Technology

Course Code	5270
Recommended Maximum Enrollment	24
Grade Level	9, 10
Credits	1 (120 hours)
Prerequisite	None
Method of Delivery	F-2-F, Hybrid, Virtual

Principles of Digital Technology is designed to prepare students to become proficient in digital citizenship, in addition to learning concepts in computer and information technology, including hardware, software, Internet, and network systems, as well as Office productivity software. Upon successful completion of this course, a student will be prepared to earn the Internet and Computing Core Certification (IC3), an industry and state-recognized credential for career-readiness. Students who currently hold or are pursuing IC3 certification may apply for college credit through the American Council on Education (ACE) member institutions.

Professional and Leadership Development

Course Code	5178
Recommended Maximum Enrollment	24
Grade Level	9, 10, 11, 12
Credits	1(120 hours)
Prerequisite	None
Method of Delivery	F-2-F, Hybrid, Virtual

The purpose of Professional and Leadership Development is to help students develop leadership skills necessary for success in business and industry. Concepts for the course include goal setting, motivation, team building, time management, problem solving, conflict resolution, communication, ethics, and diversity.

Virtual Enterprise 1, 2, 3, 4

Course Code	5150, 5151, 5152, 5153
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	Successful completion of a business or computer-related course
Method of Delivery	F-2-F, Hybrid, Virtual

The Virtual Enterprise program of study allows students to experience all areas of management of a business within a simulated environment. Students assume positions in accounting, management, information technology, legal, human resources, marketing, insurance, and business finance. Working collaboratively, students run simulated businesses in their schools as well as engage in virtual trading with other virtual businesses. The program provides students with opportunities to participate in schoolwork experience to develop college and career ready skills. Opportunities to participate in organized competitions on local, state, and national levels are integral to the course.

Workplace Communications

Course Code	5041
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	None
Method of Delivery	F-2-F, Hybrid, Virtual

The Workplace Communications course is designed to teach students to communicate in a clear, courteous, concise, complete, and correct manner on both personal and professional levels. Competency will be developed in oral, written, interpersonal, technological, and employment communication. Listening skills will be incorporated throughout the course. This course prepares students for the CEW: Professional Communications certification exam and serves as a preparation course for career readiness.

***Business Management & Administration Internship, Work-Based Credit**

Course Code	5490
Recommended Maximum Enrollment	NA
Grade Level	11, 12
Credits	1(120 hours)
Prerequisite	Completion of two (2) CTE courses within a program
Method of Delivery	F-2-F, Hybrid

Business Management & Administration Internship is a structured, work-based credit bearing course that is taken as a component of state recognized Career and Technical Education (CTE) Classification of Instructional Programs (CIP)-coded programs for CTE students. Each work-based learning (credit-bearing) course has an assigned CTE course code, and guidelines must be followed to award one Carnegie unit of credit upon successful completion of the course.

***This course will not count as the third unit for a three-unit completer pathway nor a fourth unit in a four-unit completer pathway.**

Education & Training Cluster

Child Development 1

Course Code	5800
Recommended Maximum Enrollment	24
Grade Level	9, 10, 11, 12
Credits	1 (120 hours)
Prerequisite	None
Method of Delivery	F-2-F, Hybrid, Virtual

Child Development 1 focuses on the physical, social, emotional, and cognitive growth and development of children. Emphasis is placed on helping students acquire knowledge and skills essential to the care and guidance of children. Students learn to create environments that promote optimal development. Factors influencing a child's development from conception through childhood are explored. Opportunities for service and project-based learning are incorporated throughout the course. Integration of the Family and Consumer Sciences student organization, Family, Career and Community Leaders of America (FCCLA), greatly enhances this curriculum.

Child Development 2

Course Code	5801
Recommended Maximum Enrollment	24
Grade Level	9, 10, 11, 12
Credits	1 (120 hours)
Prerequisite	Child Development 1
Method of Delivery	F-2-F, Hybrid, Virtual

Child Development 2 is a specialized course that provides students with knowledge and skills related to children's growth and development. Students are equipped to develop positive relationships with children and effective caregiving skills. Emphasis is on promoting the well-being and healthy development of children and strengthening families in a diverse society. Opportunities to investigate careers related to the care and education of children are provided. Observations, job shadowing, and service-learning experiences are encouraged. This course builds on skills and information introduced in Child Development 1. Skills acquired in Child Development 1 and 2 provide a foundation for further studies and employability in Childcare and Early Childhood Education. Critical thinking and practical problem solving are emphasized in a co-curricular approach that incorporates principles of mathematics, science, writing, and communications. Integration of the Family and Consumer Sciences student organization, Family, Career and Community Leaders of America (FCCLA), greatly enhances this curriculum.

Dual Enrollment Teacher Cadet – Educational Psychology (CTE Completers Only)

Course Code	639100EW
Recommended Maximum Enrollment	24
Grade Level	11, 12
Credits	1(120 hours)
Prerequisite	3.0 GPA on a 4.0 scale, grade of 70 or higher in Teacher Cadet – Experiencing Education
Method of Delivery	F-2-F

Teacher Cadet-Educational Psychology focuses on the dynamics of human learning and the psychological principles that serve as the foundation for educational practice. The general goal is to introduce students to the field of educational psychology and apply the concepts, theoretical principles, and research findings from the discipline of psychology to the planning and implementation of effective instructional strategies in the classroom. Major emphasis is placed on assisting students in gaining a functional knowledge of the ideas explored.

Note: Teacher Cadet courses have both CTE and academic course codes. The content is the same for the CTE and academic students. The only difference is the use of the CTE course code for a CTE completer program.

Dual Enrollment Teacher Cadet – Experiencing Education (CTE Completers Only)

Course Code	570500EW
Recommended Maximum Enrollment	24
Grade Level	11, 12
Credits	1(120 hours)
Prerequisite	3.0 GPA on a 4.0 scale
Method of Delivery	F-2-F

Teacher Cadet-Experiencing Education is an innovative, curriculum-based college level course designed to attract talented young people to the education profession through a challenging introduction to teaching. The Teacher Cadet Program seeks to provide high school students insights into the nature of teaching, the problems of schooling, and the critical issues affecting the quality of education in America's schools.

Note: Teacher Cadet courses have both CTE and academic course codes. The content is the same for the CTE and academic students. The only difference is the use of the CTE course code for a CTE completer program.

Early Childhood Education 1

Course Code	5700
Recommended Maximum Enrollment	24
Grade Level	10, 11
Credits	1 (120 hours), 2 (240 hours)
Prerequisite	None
Method of Delivery	F-2-F, Hybrid, Virtual

Early Childhood Education 1 is designed to provide students with hands-on opportunities to actively explore and observe the world of children and prepare them for educational and administrative careers in the field. This course provides an in-depth study of career paths, developmentally appropriate practices, curriculum development, safe and healthy learning environments, and collaborative relationships. Participation in student organizations, Educators Rising (former Future Educators Association) and/or Family, Career and Community Leaders of America (FCCLA) greatly enhances the learning experience.

Early Childhood Education 2

Course Code	5701
Recommended Maximum Enrollment	24
Grade Level	11, 12
Credits	1 (120 hours), 2 (240 hours)
Prerequisite	Early Childhood Education 1
Method of Delivery	F-2-F, Hybrid, Virtual

Early Childhood Education 2 is an advanced course focusing on the competencies needed to plan, guide, and care for young children in a safe, healthy, and developmentally appropriate environment. Students can acquire certification in pediatric safety, cardiopulmonary resuscitation (CPR), and first aid. Students interact with professionals in the field and participate in various work-based learning activities. Student laboratory/field experiences may be school based or in the community and include job shadowing and internships. This course may be taken for dual credit or may be articulated to local technical colleges (ECD 135: Health, Safety, and Nutrition; ECD 101: Introduction to Early Childhood Development). Students who successfully complete ECD 101 will be eligible for the South Carolina Early Childhood Credential. Participation in student organizations Educators Rising and/or Family, Career and Community Leaders of America (FCCLA) enhance the learning experience.

Introduction to Early Childhood Education

Course Code	5702
Recommended Maximum Enrollment	24
Grade Level	9, 10, 11
Credits	1 (120 hours)
Prerequisite	None
Method of Delivery	F-2-F, Hybrid, Virtual

Introduction to Early Childhood Education is designed as an introduction of skills required for a career in the care, education, and administration of programs for young children. Students will develop skills in areas including career paths, developmentally appropriate practices, safe and healthy learning environments, and collaborative relationships. Academics and employability skills are integrated throughout the course. Units from this course could be applied to education and training, health sciences, business, and human services clusters. Participation in student organizations Educators Rising (former Future Educators Association) and/or Family, Career and Community Leaders of America (FCCLA) enhance the learning experience.

Introduction to Teaching 1

Course Code	5703
Recommended Maximum Enrollment	24
Grade Level	10, 11
Credits	1 (120 hours), 2 (240 hours)
Prerequisite	None
Method of Delivery	F-2-F, Hybrid, Virtual

Introduction to Teaching 1 is designed to prepare students for employment and/or postsecondary opportunities in the education field. The program provides instruction in the teaching profession, communication skills, human growth and development, planning and instructional strategies, and school-societal relationships. Technology is integrated throughout the course work. Participation in student organizations Educators Rising (former Future Educators Association) and/or Family, Career and Community Leaders of America (FCCLA) enhance the learning experience.

Introduction to Teaching 2

Course Code	5704
Recommended Maximum Enrollment	24
Grade Level	11, 12
Credits	1 (120 hours), 2 (240 hours)
Prerequisite	Introduction to Teaching 1
Method of Delivery	F-2-F, Hybrid, Virtual

Introduction to Teaching 2 is an advanced level course that builds on skills developed in Introduction to Teaching Level 1. Students develop a higher level of proficiency through authentic learning experiences. Students plan engaging lessons, enhance communication and presentation skills, explore school-societal relationships, and exhibit professionalism. Technology is integrated throughout the course work. Participation in student organizations Educators Rising (former Future Educators Association) and/or Family, Career and Community Leaders of America (FCCLA) enhance the learning experience.

***Education & Training Internship, Work-Based Credit**

Course Code	6390
Recommended Maximum Enrollment	NA
Grade Level	11, 12
Credits	1 (120 hours)
Prerequisite	Completion of two (2) CTE courses/units within a program
Method of Delivery	F-2-F

Education & Training Internship is a structured, work-based credit bearing course that is taken as a component of state recognized Career and Technical Education (CTE) Classification of Instructional Programs (CIP)-coded programs for CTE students. Each work-based learning (credit-bearing) course has an assigned CTE course code, and guidelines must be followed to award one Carnegie unit of credit upon successful completion of the course.

***This course will not count as the third unit for a three-unit completer pathway nor a fourth unit in a four-unit completer pathway.**

Middle School – Finance Cluster

Financial Literacy (phasing out June 30, 2025)

Course Code	2705
Recommended Maximum Enrollment	24
Grade Level	7, 8
Credits	None
Prerequisite	None
Method of Delivery	F-2-F, Hybrid, Virtual

Financial Literacy is designed to introduce the student to basic financial literacy skills to help them make responsible financial decisions. Concepts covered include financial planning, bank accounts, credit and loans, wages and taxes, investments, and insurance. Students will gain the information and skills to implement a life-long plan for financial success.

High School – Finance Cluster

Accounting 1

Course Code	5001
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	Completion of Algebra I or equivalent with a grade of C or better and/or accounting instructor approval.
Method of Delivery	F-2-F, Hybrid, Virtual

Accounting 1 introduces accounting for business and personal use, and serves as a foundation for business ownership opportunities, employment, and post-secondary studies in all areas of business. Topics covered include the accounting cycle, cash control, payroll, financial statements, and the use of automated accounting and electronic spreadsheet software.

Accounting 2

Course Code	5005
Recommended Maximum Enrollment	24
Grade Level	11, 12
Credits	1 (120 hours)
Prerequisite	Accounting 1 with minimum grade of C or better and/or instructor approval
Method of Delivery	F-2-F, Hybrid, Virtual

In Accounting 2, students will use the knowledge they gained in Accounting 1 to graduate to more complex concepts. Additional accounting skills will be developed to include preparing and journalizing advanced business transactions related to current and fixed assets, liabilities, and stockholder's equity to complete the accounting cycle, and subsequently, analyzing and interpreting financial information. Students will also demonstrate knowledge of accounting principles and procedures using automated accounting and electronic spreadsheet software. In addition, students will be expected to demonstrate career-ready skills and may have the opportunity to acquire industry recognized certifications.

Advanced Personal Finance

Course Code	5131
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	None
Method of Delivery	F-2-F, Hybrid, Virtual

The Advanced Personal Finance course is an in-depth study of the principles of personal finance. Using experiential activities, students will learn tools and techniques to become financially literate living and working within a global marketplace. Tools and techniques include budgeting, managing credit and debt, banking, developing investments, reducing financial risk, computing earnings and taxes, renting or purchasing housing, evaluating post-secondary education and training funding. Also, students will learn to use consumer protection laws, internet safety and cyber security to safeguard their finances. Upon successful completion of this course, students may have the opportunity to demonstrate career-readiness with the attainment of an industry-recognized certification. This course has been vetted and can be used to meet the personal finance graduation requirement.

Banking Services

Course Code	5271
Recommended Maximum Enrollment	24
Grade Level	9, 10, 11, 12
Credits	1 (120 hours)
Prerequisite	None
Method of Delivery	F-2-F, Hybrid, Virtual

Banking Services is designed to offer a unique approach to understanding the banking services. It introduces banking services and functions, history and purpose of banking, money and interest, deposits in banking, negotiable instruments, bank loans, mortgages, specialized bank services, promoting the bank, security and ethics, and careers in banking. **This course has been vetted and can be used to meet the personal finance graduation requirement.**

Business Finance

Course Code	5273
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	Accounting 1
Method of Delivery	F-2-F, Hybrid, Virtual

Business Finance is designed to provide students with an understanding of how corporations, organizations, and businesses handle money. Concepts include the management of money, accounting methodologies, investing strategies, and effective financial management. **This course has been vetted and can be used to meet the personal finance graduation requirement.**

Insurance and Risk Management

Course Code	5275
Recommended Maximum Enrollment	24
Grade Level	11, 12
Credits	1 (120 hours)
Prerequisite	Personal Finance
Method of Delivery	F-2-F, Hybrid, Virtual

The Insurance and Risk Management course is designed to introduce the student to the basic elements of the insurance industry: auto, renters and homeowner's, health, life, disability and long-term care, and other personal and commercial insurance coverages. Career opportunities in the insurance industry will also be discussed. Upon completion of the course, the student will have a background and licensure to seek an entry-level position in the insurance industry.

Securities and Investments

Course Code	5277
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	Business Finance or Personal Finance
Method of Delivery	F-2-F, Hybrid, Virtual

Securities and Investments prepares students to make intelligent investment decisions based on their personal financial needs (or on the needs of a business). Students will describe and abide by laws and regulations to manage business operations and transactions in the securities industry: access, process, maintain, evaluate, and disseminate information to assist in making decisions common to the securities industry; and monitor, plan, and control day-to-day securities organization activities to ensure continued business functions. Topics include the analysis of stocks, dividends, hedge funds, venture capital, bonds, mutual funds, real estate, precious metals, gems, collectibles, and futures/options markets. **This course has been vetted and can be used to meet the personal finance graduation requirement.**

***Finance Internship, Work-Based Credit**

Course Code	6190
Recommended Maximum Enrollment	NA
Grade Level	11, 12
Credits	1 (120 hours)
Prerequisite	Completion of two (2) CTE courses/units within a program
Method of Delivery	F-2-F, Hybrid

Finance Internship is a structured, work-based credit bearing course that is taken as a component of state recognized Career and Technical Education (CTE) Classification of Instructional Programs (CIP)-coded programs for CTE students. Each work-based learning (credit-bearing) course has an assigned CTE course code, and guidelines must be followed to award one Carnegie unit of credit upon successful completion of the course.

***This course will not count as the third unit for a three-unit completer pathway nor a fourth unit in a four-unit completer pathway.**

Government & Public Administration Cluster

Community and Regional Planning

Course Code	6572
Recommended Maximum Enrollment	24
Grade Level	9, 10, 11, 12
Credits	1 (120 hours)
Prerequisite	None
Method of Delivery	F-2-F, Hybrid, Virtual

Community and Regional Planning introduces students to the knowledge and skills of using the techniques and political process of designing and shaping counties and cities. Students will develop an understanding of the historical rationale for urban planning, gain knowledge about contemporary planning practice and current issues faced by planners. Students will also engage firsthand with urban planning issues and phenomena in relation to their local context.

Foundation of Leadership

Course Code	6570
Recommended Maximum Enrollment	24
Grade Level	9, 10, 11, 12
Credits	1 (120 hours)
Prerequisite	None
Method of Delivery	F-2-F, Hybrid, Virtual

In the Foundation of Leadership course, students use 21st century technology and media to develop the skills necessary for success in government and public administration. The emphasis is leadership development through project management, team building, goal setting, time and resource management, communication, ethics, and personal and professional branding. This course incorporates project and service-based learning.

Principles of Public Management and Administration

Course Code	6571
Recommended Maximum Enrollment	24
Grade Level	9, 10, 11, 12
Credits	1 (120 hours)
Prerequisite	None
Method of Delivery	F-2-F, Hybrid, Virtual

Principles of Public Management & Administration introduces students to the knowledge and technical skills of working in public service and serving the general public in a government or public administration career.

***Government & Public Administration Internship, Work-Based Credit**

Course Code	6580
Recommended Maximum Enrollment	NA
Grade Level	11, 12
Credits	1 (120 hours)
Prerequisite	Completion of two (2) CTE courses/units within a program
Method of Delivery	F-2-F

Government and Public Administration Internship is a structured, work-based credit bearing course that is taken as a component of state recognized Career and Technical Education (CTE) Classification of Instructional Programs (CIP)-coded programs for CTE students. Each work-based learning (credit-bearing) course has an assigned CTE course code, and guidelines must be followed to award one Carnegie unit of credit upon successful completion of the course.

***This course will not count as the third unit for a three-unit completer pathway nor a fourth unit in a four-unit completer pathway.**

Middle School – Health Science Cluster

Introduction to Health Professions

Course Code	2839
Recommended Maximum Enrollment	24
Grade Level	7, 8
Credits	NA
Prerequisite	NA
Method of Delivery	F-2-F, Hybrid, Virtual

Introduction to Health Professions provides students with an introduction to many healthcare careers and the safety procedures and interpersonal communication skills required for them. The course will enable students to receive initial exposure to healthcare skills; attitudes applicable to healthcare including the concepts of health, wellness, and preventative care; and responsibilities of today's healthcare provider. Mastery of skills through project-based learning, technical skills practice, and group activities will provide students with an opportunity to decide if they want to continue this course of study in high school and/or at a post-secondary institution. Students will be introduced to the five career pathways developed by the National Consortium on Health Science Education (NCHSE): therapeutic services, diagnostic services, health informatics, support services, and biotechnology research and development.

Fundamentals of Healthcare

Course Code	2791
Recommended Maximum Enrollment	24
Grade Level	8
Credits	NA
Prerequisite	NA
Method of Delivery	F-2-F, Hybrid, Virtual

Fundamentals of Health Care provides students with a foundation of healthcare applications used in a variety of healthcare careers. While further exploring the five career pathways developed by NCHSE (the National Consortium on Health Science Education), students will be exposed to basic healthcare industry practices. Upon completion of this course students will have a good understanding of what it takes to be a healthcare professional. This course will assist students in making informed decisions regarding academic and occupational goals.

High School – Health Science Cluster

Advanced Principles of Public Health

Course Code	5587
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours), 2 (240 hours)
Prerequisite	Foundations of Public Health
Method of Delivery	F-2-F, Hybrid, Virtual

This public health course takes a closer look at epidemiology and immunology and will guide students through health promotion and prevention of disease and injury through analyzing data and statistical research to understand community trends. This advanced course will provide students with tools to use critical thinking in understanding the transmission of disease and how to measure it.

Emergency Medical Services 1

Course Code	5531
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours), 2 (240 hours)
Prerequisite	None
Method of Delivery	F-2-F, Hybrid

Emergency Medical Services (EMS 1) is the first in a sequence of courses. Emergency Medical Services 1 is designed to teach students how to recognize and respond to various emergencies. Students will review basic anatomy and physiology as it relates to injury management and treatment. Students will review basic information needed for all phases of a healthcare professional. Information that students are exposed to will include legal and ethical implications, communications, safety, infection control and professionalism. In this course, students will learn what skills are necessary to recognize and care for emergencies in adults, children, and infants until professional medical help arrives. Students will obtain FA/CPR/AED certification. Students will be required to perform light physical activity.

Emergency Medical Services 2

Course Code	5532
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours), 2 (240 hours)
Prerequisite	Successful completion of Emergency Medical Services (EMS) 1
Method of Delivery	F-2-F, Hybrid

Emergency Medical Services (EMS) 2 is the second course in a sequence of courses. Emergency Medical Services (EMS) 2 is a continuation of EMS 1. The course includes content and skills that first responders need to provide appropriate initial care, regardless of the type of emergency. EMS 2 stresses the steps to follow in an emergency until more advanced medical personnel arrive. The skills and content taught at this level become more specific and rigorous. Students enrolled in this course will have the opportunity to become BLS Healthcare Providers CPR certified. Recertification may take place as needed. *Successful completion of this course *may* result in First Responder certification being available through various national certifying bodies.

Emergency Medical Services 3

Course Code	5533
Recommended Maximum Enrollment	12
Grade Level	12
Credits	1 (120), 2 (240 hours)
Prerequisite	Successful completion of Emergency Medical Services 2 course and completion of Health Science Human Structure, Function, and Disease or Anatomy and Physiology (or recommendation of EMS coordinator or instructor) and/or meet admission requirements of the participating local technical college for dual enrollment
Method of Delivery	F-2-F, Hybrid

Emergency Medical Services (EMS) 3 can be used as an EMT certification course. Emergency Medical Technician (EMT- EMS 3) serves as an entry level course in professional health careers. EMT/EMS 3 provides students with the knowledge and skills for the emergency medical field. This course may be offered as a dual enrollment course with the local technical college or may be offered on a high school campus with a DHEC (Department of Health and Environmental Control) approved EMT instructor. This course can be offered for seniors in high school who are at least 17 years old. Students may take the test prior to their 18th birthday but must be at least 18 years of age and a high school graduate to receive their NREMT certification. Successful completion of this course provides an opportunity for students to become registered nationally (NREMT) along with the opportunity to apply for state certification.

Foundations of Public Health

Course Code	5586
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours), 2 (240 hours)
Prerequisite	Health Science 1 or Principles of Biomedical Science
Method of Delivery	F-2-F, Hybrid, Virtual

The Foundations of Public Health course will provide introductory information for students interested in public health. This course will provide an understanding of the various components that influence personal, community, and population health. Whether that be in a world affected by a pandemic or from a day-to-day perspective in a world without one. The students will be introduced to epidemiology and biostatistics while analyzing foundational principles of public health education.

Health Science – Human Structure, Function & Disease

Course Code	5552
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours), 2 (240 hours)
Prerequisite	Biology 1 and completion of level one in Health Science 1, Sports Medicine 1 or EMS 1
Method of Delivery	F-2-F, Hybrid, Virtual

Health Science – Human Structure, Function, and Disease acquaints students with basic anatomy and physiology of the human body. Students learn how the human body is structured and the function of each of the 12 body systems. Students will study the relationship that body systems have with disease from the healthcare point of view. This is a very “hands-on” course, and students will learn through projects and activities in the classroom. Skill procedures and foundation standards are reviewed and integrated throughout the program. Job shadowing is encouraged. This course does not count as lab science.

Health Science 1 – Foundations of Healthcare Professionals

Course Code	5550
Recommended Maximum Enrollment	24
Grade Level	9, 10, 11, 12
Credits	1 (120 hours), 2 (240 hours)
Prerequisite or Co-requisite	Biology 1
Method of Delivery	F-2-F, Hybrid, Virtual

Health Science 1, Foundations of Healthcare Professionals, is an introductory course designed to provide students with an overview of healthcare careers and foundational skills to begin their journey towards the future as a healthcare professional. Upon completion of this course proficient students will be able to identify careers in these fields, compare the features of healthcare systems and begin to provide foundational health care skills. This course will serve as a foundation for all Health Science programs of study.

Health Science 2 – Essential Healthcare Practices

Course Code	5551
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours), 2 (240 hours)
Prerequisite	Biology 1 and Health Science 1 – Foundations of Healthcare Professionals with a grade of 75 or higher
Method of Delivery	F-2-F, Hybrid

Health Science 2 – Essential Healthcare Practices, course is designed to provide for the development of essential knowledge and hands-on skills related to a wide variety of health careers. Students will employ hands-on experiences for continued knowledge and skill development. Students are required to job shadow in an area that will connect to a real-world experience in the healthcare industry. Students in this course will also have an opportunity to become BLS Healthcare CPR certified.

Health Science Clinical Study

Course Code	5560
Recommended Maximum Enrollment	16
Grade Level	12
Credits	1 (120 hours), 2 (240 hours)
Prerequisite	Be a completer in any Health Science Pathway <u>or</u> be a concentrator with the substitute for the 3 rd unit (Science Dept. A & P or AP Biology) <u>plus</u> Basic Life Support (BLS) Cardiopulmonary Resuscitation (CPR) certification.
Method of Delivery	F-2-F, Hybrid

Health Science Clinical Study is a course that guides students to make connections from the classroom to the healthcare industry through clinical experiences/activities. This course is designed to provide for further development and application of knowledge and skills common to a wide variety of healthcare professions. The students will relay these skills into real-life experiences. The student, teachers, and work-based learning coordinators will work together to create opportunities for the students to get the best experience available in the district's geographic region. Students in this course must be BLS Healthcare Providers CPR certified and HIPAA trained before participating in any healthcare experience outside of the classroom. OSHA Safety Training – Healthcare certification is highly recommended. Students have an opportunity to earn several Industry Recognized Credentials upon successful completion of this course.

Introduction to Behavioral Health

Course Code	5524
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	Successful completion of Health Science 1-Foundations of Healthcare Professionals
Method of Delivery	F-2-F, Hybrid, Virtual

This course emphasizes mental and behavioral health career exploration along with recognition, prevention, and treatment of behavioral and mental health disorders. Coping mechanisms, healthy lifestyle, stress management, exercise, nutrition, and alternative therapies will be discussed and demonstrated. Subject matter also includes ethics, members of the mental health team, mental health awareness, environmental safety issues, communication, and de-escalation techniques. Students interested in healthcare careers in Psychology, Psychiatry, Counseling, Clinical Social Work, Nursing, Psychiatric Nurse Practitioner, Recreational Therapy, Occupational Therapy, Mental Health Technician, Forensic Psychology, and Neurodiagnostic Technologists will benefit from this course.

Medical Billing and Coding

Course Code	5584
Recommended Maximum Enrollment	24
Grade Level	12
Credits	1 (120 hours), 2 (240)
Required Prerequisite	Be a completer in any Health Science Pathway <u>or</u> be a concentrator with the substitute for the 3 rd unit (Science Dept. A & P or AP Biology) <u>plus</u> Basic Life Support (BLS) Cardiopulmonary Resuscitation (CPR) certification
Method of Delivery	F-2-F, Hybrid, Virtual

Medical Billing and Coding course gives students an opportunity to be involved in the medical field but without “hands – on” patient care. Students in this course will further their knowledge of foundational standards in medical law and ethics, professionalism, medical terminology, anatomy, and physiology. Topics of study will also include an introduction to coding systems: International Classification of Diseases-10 (ICD-10), Current Procedural Terminology (CPT), and Healthcare Common Procedure Coding System (HCPCS). In addition, the healthcare revenue cycle for reimbursement and payment of medical claims will be explored. Upon successful completion of this course, students may sit for a national certification exam in medical billing and insurance coding with an approved vendor.

Medical Terminology

Course Code	5540
Recommended Maximum Enrollment	24
Grade Level	9, 10, 11, 12
Credits	1 (120 hours), 2 (240 hours)
Prerequisite	Will vary by school district
Method of Delivery	F-2-F, Hybrid, Virtual

Medical terminology is designed to develop a working knowledge of the language of health professions. Students acquire word-building skills by learning prefixes, suffixes, roots, combining forms, and abbreviations. Utilizing a body systems approach, students will define, interpret, and pronounce medical terms relating to structure and function, pathology, diagnosis, clinical procedures, and pharmacology. Students will use problem-solving techniques to assist in developing an understanding of course concepts. In addition to traditional classroom instruction, Medical Terminology may be offered as a dual enrollment, virtual, online, or independent study course.

Pharmacology for Medical Careers

Course Code	5570
Recommended Maximum Enrollment	24
Grade Level	12
Credits	1 (120 hours), 2 (240 hours)
Prerequisite	Be a completer in any Health Science Pathway <u>or</u> be a concentrator with the substitute for the third unit (Science Dept. Anatomy & Physiology or Advanced Placement Biology) <u>plus</u> Basic Life Support (BLS) Cardiopulmonary Resuscitation (CPR) certification or its substitute, to enroll in this course.
Method of Delivery	F-2-F, Hybrid, Virtual

Pharmacology for Medical Careers is a program designed to inform senior level students about pharmacology in the medical field. Through project-based activities, classroom lab experiences, and work-based learning opportunities students are exposed to pharmacy careers and benefit from pharmacology, math, and science standards included in this course. The program prepares students to sit for the Pharmacy Technician Certification Board (PTCB) examination or the examination offered by the National Health Career Association – Exam for the Certification of Pharmacy Technicians (ExCPT) or National Health Career Association (NHANOW).

PLTW – Biomedical Innovation

Course Code	5583
Recommended Maximum Enrollment	24
Grade Level	12
Credits	1 (120 hours)
Prerequisite	Principles of Biomedical Sciences (PBS), Human Body Systems (HBS), and Medical Interventions
Method of Delivery	F-2-F, Hybrid

Biomedical Innovation is the capstone course for the Project Lead the Way (PLTW) Biomedical Sciences program for high school students. Students design innovative solutions for the health challenges of the 21st century. They work through progressively challenging open-ended problems, addressing topics such as clinical medicine, physiology, biomedical engineering, and public health. Students have the opportunity to work on an independent project with a mentor or advisor from a university, hospital, research institution, or the biomedical industry.

PLTW – Human Body Systems

Course Code	5581
Recommended Maximum Enrollment	24
Grade Level	9, 10, 11, 12
Credits	1 (120 hours)
Prerequisite	Successful completion of Principles of Biomedical Science or Teacher Recommendation
Method of Delivery	F-2-F, Hybrid

Human Body Systems is a foundation course for the Project Lead the Way (PLTW) Biomedical Sciences programs for high school students. Students examine the interactions of body systems as they explore identity, communication, power, movement, protections, and homeostasis. Students design experiments, investigate the structures and functions of the human body, and use data acquisition software to monitor body functions such as muscle movement, reflex and voluntary action, and respiration. Exploring science in action, students build organs and tissues on a skeletal manikin, work through interesting real-world cases, and often play the role of biomedical professionals to solve medical mysteries.

PLTW – Medical Interventions

Course Code	5582
Recommended Maximum Enrollment	24
Grade Level	11, 12
Credits	1 (120 hours)
Prerequisite	Human Body Systems and Principles of Biomedical Science
Method of Delivery	F-2-F, Hybrid

The Medical Interventions course will provide opportunities for students to investigate the variety of interventions involved in the prevention, diagnosis, and treatment of disease as they follow the lives of a fictitious family. Students will experience a wide range of interventions related to Immunology, Surgery, Genetics, Pharmacology, Medical Devices, and Diagnostics through scenarios. Case scenario interventions may range from simple diagnostic tests to treatment of complex diseases and disorders. Lifestyle choices and preventive measures are emphasized throughout the course as well as the important role scientific thinking and engineering design play in the development of interventions of the future.

PLTW – Principles of Biomedical Sciences

Course Code	5580
Recommended Maximum Enrollment	24
Grade Level	9, 10, 11, 12
Credits	1 (120 hours)
Prerequisite	Teacher Recommendation
Method of Delivery	F-2-F, Hybrid

Principles of Biomedical Sciences is a foundation course for the Project Lead the Way (PLTW) Biomedical Sciences program for high school students. This course introduces biomedical sciences through exciting hands-on projects and problems. Students investigate the human body systems and various health conditions. The activities and projects introduce students to human physiology, medicine, research processes and bioinformatics. Key biological concepts including homeostasis, metabolism, inheritance of traits, and defense against disease are embedded in the curriculum.

Practical Nursing, Phase 1

Course Code	5520
Recommended Maximum Enrollment	20
Grade Level	12
Credits	2 (240 hours)
Prerequisite	Passing score on the Nurse Entrance Exam (NET) Health Science 1 & 2 plus First Aid and Basic Life Support (BLS) Cardiopulmonary Resuscitation (CPR) certification
Method of Delivery	F-2-F

Practical Nursing programs are approved by the South Carolina Department of Labor, Licensing and Regulation, Board of Nursing. These practical nursing programs are eighteen months courses of study, consisting of two nine-month segments (Phase I and Phase II) that correspond with the public-school calendar. Classes begin annually in August and end in May. Secondary Phase I students attend classes all morning each day. Articulation agreements are established with a technical college to offer Phase II to these students upon graduation for most programs. The goal of the practical nurse pathway is to provide quality nursing education, incorporating professional work ethics, to meet the changing needs of the healthcare industry.

Public Health Capstone

Course Code	5589
Recommended Maximum Enrollment	20
Grade Level	12
Credits	1 unit (120 hours), 2 units (240 hours)
Prerequisite	Successful completion of Advanced Principles of Public Health
Method of Delivery	F-2-F, Hybrid

This capstone course will use epidemiological thinking and the public health approach to explain cause and effect associations that influence health and disease through an end of course, project-based assessment. This course will serve as the final course in the public health pathway. The skills and knowledge that students will learn throughout their capstone project development will serve to prepare them to be college or career ready. Objectives taught in this course will include epidemiological research and design, preparation for the workforce, and work-based learning experiences.

Sports Medicine 1

Course Code	5555
Recommended Maximum Enrollment	24
Grade Level	9, 10, 11, 12
Credits	1 unit (120 hours), 2 units (240 hours)
Prerequisite or Co-requisite	None; varies by school district
Method of Delivery	F-2-F, Hybrid

Sports Medicine 1 emphasizes sports medicine career exploration and the prevention of athletic injuries, including the components of exercise science, kinesiology, anatomy, first aid, and CPR. Students interested in healthcare careers associated with sports medicine such as athletic training and rehabilitation careers would benefit from this course.

Sports Medicine 2

Course Code	5556
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 unit (120 hours), 2 units (240 hours)
Prerequisites	Required successful completion of Sports Medicine 1, <u>plus</u> Cardiopulmonary Resuscitation (CPR) <u>and</u> first aid (FA) certification
Method of Delivery	F-2-F, Hybrid

This course emphasizes the recognition and care of common injuries and illnesses sustained by a physically active population. Subject matter will include discussion of specific conditions, concepts of therapeutic modalities, rehabilitation, and care of injuries.

Sports Medicine 3

Course Code	5557
Recommended Maximum Enrollment	16
Grade Level	12
Credits	1 unit (120 hours), 2 units (240 hours)
Prerequisites	Required successful completion of Sports Medicine 1 and 2 with a grade of 75 or higher <u>plus</u> Basic Life Support (BLS) certification; successful completion of Medical Terminology, Health Science 3, <u>or</u> Anatomy and Physiology prior to this course is strongly recommended
Method of Delivery	F-2-F, Hybrid

Sports Medicine 3 emphasizes the student's ability to apply concepts from previous Sports Medicine course work to real-world situations and scenarios. Priority is placed on understanding current research and evidence-based practices affecting the practice of Sports Medicine professionals. Students will develop policies, procedures, and guidelines based on these aspects, as well as explore detailed treatment and rehabilitation procedures for common athletic injuries. Students will participate in clinical situations either at school with their athletic department or in an outside clinical setting for real world experiences. This course qualifies students for national certifications in EKG, Physical Therapy Aide, Personal Trainer, or other associated certifications.

***Health Science Internship, Work-Based Credit**

Course Code	5590
Recommended Maximum Enrollment	NA
Grade Level	11, 12
Credits	1 unit (120 hours)
Prerequisite	Successful completion of two Health Sciences courses <u>plus</u> Cardiopulmonary Resuscitation (CPR) <u>and</u> First Aid (FA) certification
Method of Delivery	F-2-F

Health Science Internship is a structured, work-based credit bearing course that is taken as a component of state recognized Career and Technical Education (CTE) Classification of Instructional Programs (CIP)-coded programs for CTE students. Each work-based learning (credit-bearing) course has an assigned CTE course code, and guidelines must be followed to award one Carnegie unit of credit upon successful completion of the course.

***This course will not count as the third unit for a three-unit completer pathway nor a fourth unit in a four-unit completer pathway.**

***Public Health Internship, Work-Based Credit**

Course Code	5588
Recommended Maximum Enrollment	NA
Grade Level	11, 12
Credits	1 unit (120 hours)
Prerequisite	Successful completion of two Sports Medicine courses <u>plus</u> Cardiopulmonary Resuscitation (CPR) <u>and</u> First Aid (FA) certification
Method of Delivery	F-2-F

Public Health Internship is a structured, work-based credit bearing course that is taken as a component of state recognized Career and Technical Education (CTE) Classification of Instructional Programs (CIP)-coded programs for CTE students. Each work-based learning (credit-bearing) course has an assigned CTE course code, and guidelines must be followed to award one Carnegie unit of credit upon successful completion of the course.

***This course will not count as the third unit for a three-unit completer pathway nor a fourth unit in a four-unit completer pathway.**

***Sports Medicine Internship, Work-Based Credit**

Course Code	5591
Recommended Maximum Enrollment	NA
Grade Level	11, 12
Credits	1 unit (120 hours)
Prerequisite	Successful completion of two Sports Medicine courses <u>plus</u> Cardiopulmonary Resuscitation (CPR) <u>and</u> First Aid (FA) certification
Method of Delivery	F-2-F

Sports Medicine Internship is a structured, work-based credit bearing course that is taken as a component of state recognized Career and Technical Education (CTE) Classification of Instructional Programs (CIP)-coded programs for CTE students. Each work-based learning (credit-bearing) course has an assigned CTE course code, and guidelines must be followed to award one Carnegie unit of credit upon successful completion of the course.

***This course will not count as the third unit for a three-unit completer pathway nor a fourth unit in a four-unit completer pathway.**

Hospitality & Tourism Cluster

Advanced Baking and Pastry

Course Code	5724
Recommended Maximum Enrollment	24
Grade Level	11, 12
Credits	2 (240 hours)
Prerequisite	Baking and Pastry
Method of Delivery	F-2-F, Hybrid

Baking and Pastry for high school students is a course that provides students an opportunity to develop foundational skills needed for a seamless transition to a postsecondary program, workforce, or military. Students will develop advanced skills in safety and sanitation in addition to management and professionalism. Specialized content includes units on formulas and techniques, basic baking principles, specialized dietary baking, breads, desserts and pastries, and advanced techniques for specialty cakes, confections, piping, plate presentation, and flavor pairing. Concepts are aligned with competencies from the American Culinary Federation (ACF) Education foundation assessment, ACF Retail Commercial Baking Certification. Integration of the Family and Consumer Sciences student organization, Family Career and Community Leaders of America (FCCLA) provides leadership and entrepreneurship experiences. Participation in the career & technology organization SkillsUSA provides the students an opportunity to compete and display professional baking techniques.

Baking and Pastry

Course Code	5723
Recommended Maximum Enrollment	24
Grade Level	11, 12
Credits	2 (240 hours)
Prerequisite	NA
Method of Delivery	F-2-F, Hybrid

Baking and Pastry for high school students is a course that provides students an opportunity to develop foundational skills needed for a seamless transition to a postsecondary program, workforce, or military. Students will develop advanced skills in safety and sanitation in addition to management and professionalism. Concepts are aligned with competencies from the American Culinary Federation (ACF) Education foundation assessment, ACF Retail Commercial Baking Certification. Integration of the Family and Consumer Sciences student organization, Family Career and Community Leaders of America (FCCLA) provides leadership and entrepreneurship experiences. Participation in the career & technology organization SkillsUSA provides the students an opportunity to compete and display professional baking techniques.

Culinary Arts Management 1

Course Code	5720
Recommended Maximum Enrollment	20
Grade Level	10, 11, 12
Credits	1 (120 hours), 2 (240 hours)
Prerequisite	None
Method of Delivery	F-2-F, Hybrid

Culinary Arts Management 1 prepares students for gainful employment and/or entry into postsecondary education in the food production and service industry. Content provides students the opportunity to acquire marketable skills by examining both the industry and its career opportunities. Laboratory experiences simulate commercial food production and service operations. Integration of the Family and Consumer Sciences student organization, Family Career and Community Leaders of America (FCCLA) provides leadership and entrepreneurship experiences. Participation in the career & technology organization SkillsUSA provides the students an opportunity to compete and display professional baking techniques.

Culinary Arts Management 2

Course Code	5721
Recommended Maximum Enrollment	20
Grade Level	11, 12
Credits	1 (120 hours), 2 (240 hours)
Prerequisite	Culinary Arts 1
Method of Delivery	F-2-F, Hybrid

Culinary Arts Management 2 is an advanced level course that prepares the serious culinary student for gainful employment and/or entry into postsecondary education. Content provides students the opportunity to acquire marketable skills by examining both the industry and its career options. Students have opportunities to develop skills in workplace settings. Integration of the Family and Consumer Sciences student organization, Family Career and Community Leaders of America (FCCLA) provides leadership and entrepreneurship experiences. Participation in the career & technology organization SkillsUSA provides the students an opportunity to compete and display professional baking techniques.

Event and Entertainment Management

Course Code	5475
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	Introduction to Hospitality and Tourism Management, Introduction to Culinary Arts Management, or Culinary Arts Management 1
Method of Delivery	F-2-F, Hybrid, Virtual

Create magic and memories... Event and Entertainment Management familiarizes students with management techniques and strategies for successful planning, promotion, and implementation of special events that result in extraordinary and memorable experiences. Students will learn the basics about what it takes to add the “WOW factor” for customers whether the event is a sporting event, corporate event, family reunion, cruise, wedding, party, etc. Students will engage in project- and problem-based learning opportunities for event evaluation, direct observation of, and hands-on involvement in the planning and staging of special events. Students are encouraged to participate in extended learning experiences such as career and technical student organizations (FCCLA and/or DECA) and other leadership or extracurricular organizations to enhance their learning.

Introduction to Culinary Arts Management

Course Code	5722
Recommended Maximum Enrollment	20
Grade Level	10
Credits	1 (120 hours)
Prerequisite	None
Method of Delivery	F-2-F, Hybrid

Introduction to Culinary Arts Management provides students with an overview of interest, aptitude, and technical skills to provide foundational skills and knowledge for Culinary Arts 1 and/or the food service industry. Integration of the Family and Consumer Sciences student organization, Family Career and Community Leaders of America (FCCLA) provides leadership and entrepreneurship experiences. Participation in the career & technology organization SkillsUSA provides the students with the opportunity to compete and display professional baking techniques.

Introduction to Hospitality and Tourism Management

Course Code	5478
Recommended Maximum Enrollment	24
Grade Level	9, 10, 11
Credits	1 (120 hours)
Prerequisite	None
Method of Delivery	F-2-F, Hybrid, Virtual

Hospitality + you = unimaginable opportunities. Introduction to Hospitality and Tourism Management explores the nature, concepts and impact of the hospitality and tourism industry. This course focuses on foundational information about the hospitality and tourism industry and provides opportunities for students to get a taste of what hospitality and tourism is all about. Course content includes career exploration, employability and career development skills, guest satisfaction, safety, security and environmental practices, the history of the hospitality industry, and the hospitality and tourism segments. Students are encouraged to participate in extended learning experiences such as career and technical student organizations (FCCLA and/or DECA) and other leadership or extracurricular organizations to enhance their learning.

Lodging Management

Course Code	5473
Recommended Maximum Enrollment	NA
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	Introduction to Hospitality and Tourism Management
Method of Delivery	F-2-F, Hybrid, Virtual

There's no dodging the lodging! So, check-in for a five-star experience! Lodging Management is the study of the lodging industry's history, growth, development, and future direction. Students will learn what it takes to provide ideal guest experiences from a management perspective. The course covers front office procedures and interpersonal dynamics from reservations through night audit. Students are encouraged to participate in extended learning experiences such as career and technical student organizations (FCCLA and/or DECA) and other leadership or extracurricular organizations to enhance their learning experiences.

Safety and Sanitation

Course Code	5460
Recommended Maximum Enrollment	NA
Grade Level	11, 12
Credits	1 (120 hours)
Prerequisite	NA
Method of Delivery	F-2-F, Hybrid, Virtual

The Safety and Sanitation course teaches students to provide safe food by following procedures to avoid food contamination that lead to foodborne illnesses. Course standards and competencies include information about various forms of food contamination, dangers of food borne illnesses, characteristics of potentially hazardous foods, high risk populations, proper food handling techniques, correct procedures for receiving, preparing, serving, and storing food products, how to be a safe food handler, how to maintain safe facilities and pest management, methods of cleaning and sanitizing, and the importance of food safety training in the workplace. The course prepares students for entry and management level certifications.

Travel and Tourism Management

Course Code	5474
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	Introduction to Hospitality and Tourism Management
Method of Delivery	F-2-F, Hybrid, Virtual

Discover the world one adventure at a time! Travel and Tourism Management incorporates management principles and procedures of the travel and tourism industry as well as destination geography, airlines, international travel, cruising, travel by rail, lodging, recreation, amusements, attractions, and resorts. Employment qualifications and opportunities are also included in this course. Students are encouraged to participate in extended learning experiences such as career and technical student organizations (FCCLA and/or DECA) and other leadership or extracurricular organizations.

***Hospitality & Tourism Internship, Work-Based Credit**

Course Code	5190
Recommended Maximum Enrollment	NA
Grade Level	11, 12
Credits	1 (120 hours)
Prerequisite	Completion of two (2) CTE courses/units within a program
Method of Delivery	F-2-F

Hospitality and Tourism Internship is a structured, work-based credit bearing course that is taken as a component of state recognized Career and Technical Education (CTE) Classification of Instructional Programs (CIP)-coded programs for CTE students. Each work-based learning (credit-bearing) course has an assigned CTE course code, and guidelines must be followed to award one Carnegie unit of credit upon successful completion of the course.

***This course will not count as the third unit for a three-unit completer pathway nor a fourth unit in a four-unit completer pathway.**

Human Services Cluster

Barber/Master Hair Care 1, 2, 3, 4

Course Code	6158, 6159, 6160, 6161
Required Maximum Enrollment	20 students per class period
Grade Level	10, 11, 12
Credits/Hours	8 units/1000 hours <u>plus</u> 540 academic hours required by South Carolina Labor, Licensing and Regulation (SCLLR)
Prerequisite	Courses should be taken sequentially; Barber/Master Hair Care 2 – Pass Barber/Master Hair Care 1 with a minimum of a 70 average and a minimum of 250 clock hours; Barber/Master Hair Care 3 – Pass Barber/Master Hair Care 2 with a minimum of a 70 average and a minimum of 500 clock hours; Barber/Master Hair Care 4 – Pass Barber/Master Hair Care 3 with a minimum of a 70 average and a minimum of 750 clock hours OR teacher/administrator approval
Method of Delivery	F-2-F, Hybrid (based on SCLLR guidelines)

The Barber/Master Hair Care Specialist Program is designed to prepare students to become Registered Barbers or Master Hair Care Specialists. The student receives training following the guidelines and regulations established by the South Carolina Labor, Licensing, and Regulation (SCLLR) Barber Board. Students will perform techniques and arts such as hair cutting and styling, facial treatments, trimming and shaving of facial hair, chemical hair relaxing, tinting, coloring, shampooing, and rinsing. Instruction in chemistry, bacteriology, and anatomy and physiology of the face, head, arms, and hands is incorporated by means of theory and practical application on both mannequins and live models. Also included during study is barber shop/salon planning and management. The use of four course codes is required for this program.

Cosmetology 1, 2, 3, 4

Course Code	6150, 6151, 6152, 6153
Required Maximum Enrollment	20 students per class period
Grade Level	11, 12
Credits/Hours	8 units/1000 hours <u>plus</u> 540 academic hours required by South Carolina Labor, Licensing and Regulation (SCLLR)
Prerequisite	Courses should be taken sequentially; Cosmetology 2 – Pass Cosmetology 1 with a minimum of a 75 average and a minimum of 250 clock hours; Cosmetology 3 – Pass Cosmetology 2 with a minimum of a 75 average and a minimum of 500 clock hours Cosmetology 4 – Pass Cosmetology 3 with a minimum of a 75 average and a minimum of 750 clock hours OR teacher/administrator approval
Method of Delivery	F-2-F, Hybrid (based on SCLLR guidelines)

The Cosmetology Program is designed to prepare students to qualify and successfully complete all requirements for a South Carolina Cosmetology license. The student receives training following the guidelines and regulations established by the South Carolina Labor, Licensing, and Regulation (SCLLR) Cosmetology Board. The course of study includes Sanitation and Safety, Professionalism and Salon Management, Sciences of Cosmetology, Professional Hair Care Skills, Professional Nail Care Skills, Professional Skin Care Skills, and Unassigned Specific Needs. Instruction in chemistry, bacteriology, and anatomy and physiology of the face, head, arms, and hands is incorporated by means of theory and of practical application on both mannequins and live models. The use of four course codes is required for this program.

Esthetics 1, 2, 3, 4

Course Codes	6162, 6163, 6164, 6165
Required Maximum Enrollment	20 students per class period
Grade Level	11, 12
Credits/Hours	4 units/450 hours required by South Carolina Labor, Licensing and Regulation (SCLLR) <u>plus</u> 30 hours by South Carolina Department of Education (SCDE) or a total of <u>480 hours</u> .
Prerequisite	Courses should be taken sequentially; Esthetics 2 – Pass Esthetics 1 with a minimum of a 75 average and a minimum of 120 clock hours; Esthetics 3 – Pass Esthetics 2 with a minimum of a 75 average and a minimum of 240 clock hours; Esthetics 4 – Pass Esthetics 3 with a minimum of a 75 average and a minimum of 360 clock hours OR teacher/administrator approval F-2-F, Hybrid (based on SCLLR guidelines)
Method of Delivery	

Esthetics is designed to train students in the theory and practical skills necessary to prepare them for immediate employment opportunities as a licensed esthetician. The student receives training following the guidelines and regulations established by the South Carolina Labor, Licensing, and Regulation (SCLLR) Cosmetology Board. The course is designed to instill desirable work habits and a positive attitude toward an esthetics career. Technical skills are complemented with training in practical communication and people skills. Emphasis is placed on ethical business practices throughout the Esthetics course.

Nail Technology 1, 2, 3, 4

Course Code	6154, 6155, 6156, 6157
Required Maximum Enrollment	20 students per class period
Grade Level	11, 12
Credits/Hours	3 units: 300 hours required by South Carolina Labor, Licensing and Regulation (SCLLR) <u>plus</u> 60 hours South Carolina Department of Education (SCDE) or a total of <u>360 hours</u>
Prerequisite	Courses should be taken sequentially; Nail Technology 2 – Pass Nail Technology 1 with a minimum of a 75 average and a minimum of 120 clock hours; Nail Technology 3 – Pass Nail Technology 2 with a minimum of a 75 average and a minimum of 240 clock hours OR teacher/administrator approval Nail Technology 4 (optional) – Pass Nail Technology 3 with a minimum of a 75 average and a minimum of 360 clock hours
Method of Delivery	F-2-F, Hybrid (based on SCLLR guidelines)

The Nail Technology program is designed to prepare students to become licensed nail technologists. Nail Technology students receive training in the art and science of the care and beautification of nails. The student receives training following the guidelines and regulations established by the South Carolina Labor, Licensing, and Regulation (SCLLR) Cosmetology Board. The course of study includes instruction in diseases and disorders, chemistry, biology and anatomy, and physiology of the arms, hands, and feet. Manicures, pedicures, tips, sculptures, and wraps are incorporated by means of theory and practical application on both mannequins and live models. Also included during study is salon planning and management.

Natural Hair Braiding

Course Code	6146
Required Maximum Enrollment	20 students per class period
Grade Level	11, 12 (16 years old or older)
Credits/Hours	1 (120 hours), 2 (240 hours)
Course Requirement - SCLLR	6 hour one-day training
Prerequisite	NA
Method of Delivery	F-2-F, Hybrid

This Natural Hair Braiding project-based course provides students with the knowledge and techniques associated with natural hair structure. African American history, computer science skills (to attract underrepresented populations to computer science), and employability skills are integrated throughout the content to equip students with the skills needed to successfully face challenges of the workplace. A required culminating activity for the hair braiding course is a one-day six-hour course that covers disorders and diseases of the scalp, sanitation and sterilization, policies and procedures, and the SC Board of Barber Examiners statutes, regulations which lead to the South Carolina Hair Braiding Registration industry recognized credential. Students will demonstrate advanced natural hair braiding technical skills by competing in district, state, and national competitions. Participation in the SkillsUSA Career and Technical Student Organization provides opportunities to develop and maintain leadership and technical skills.

***Human Services Internship, Work-Based Credit**

Course Codes	5790
Required Maximum Enrollment	NA
Grade Level	11, 12
Credits	1 (120 hours)
Prerequisite	Requirements satisfied by South Carolina Labor, Licensing and Regulation (SCLLR) statutes and regulations prior to working with the public
Method of Delivery	F-2-F

Human Services Internship is a structured, work-based credit bearing course that is taken as a component of state recognized Career and Technical Education (CTE) Classification of Instructional Programs (CIP)-coded programs for CTE students. Each work-based learning (credit-bearing) course has an assigned CTE course code, and guidelines must be followed to award one Carnegie unit of credit upon successful completion of the course.

***This course will not count as the third unit for a three-unit completer pathway nor a fourth unit in a four-unit completer pathway.**

Middle School – Human Services/Family and Consumer Sciences

Exploratory Family and Consumer Sciences – 6th Grade

Course Code	1858
Recommended Maximum Enrollment	24
Grade Level	6
Credits	NA
Prerequisite	NA
Method of Delivery	F-2-F, Hybrid, Virtual

Exploratory Family and Consumer Sciences introduces students to relationships, resources, home safety and security, childcare responsibilities, personal image, basic food preparation techniques, career, and entrepreneurship opportunities. Integration of the Family and Consumer Sciences student organization, Family Careers, and Community Leaders of America (FCCLA), greatly enhances this curriculum.

Introduction to Family and Consumer Sciences 1 – 7th Grade

Course Code	2857
Recommended Maximum Enrollment	24
Grade Level	7
Credits	NA
Prerequisite	NA
Method of Delivery	F-2-F, Hybrid, Virtual

Introduction to Family and Consumer Sciences 1 provides an opportunity for students to explore self-image, consumer issues, and environmental concerns, positive approaches to child development, clothing care, nutritional choices, food preparation, and skills for successful employment.

Introduction to Family and Consumer Sciences 2 – 8th Grade

Course Code	2858
Recommended Maximum Enrollment	24
Grade Level	8
Credits	NA
Prerequisite	NA
Method of Delivery	F-2-F, Hybrid, Virtual

Introduction to Family and Consumer Sciences 2 focuses on the changes and challenges faced by young teens today. Topics include family relationships, goal setting, money management, home repairs, early childhood development, textile products, nutrition-related diseases and illnesses and careers.

High School – Human Services/Family and Consumer Sciences

Family and Consumer Sciences 1

Course Code	5808
Recommended Maximum Enrollment	24
Grade Level	9, 10, 11, 12
Credits	1 (120 hours)
Prerequisite	None
Method of Delivery	F-2-F, Hybrid, Virtual

Family and Consumer Sciences 1 is a comprehensive course designed to provide students with the core knowledge and skills needed to manage their lives. Project based instruction provides students with opportunities to utilize higher order thinking, communication, and leadership skills impacting families and communities. Concepts incorporate interpersonal relationships, career, community, and family connections, family, nutrition and wellness, consumer and family resources, fashion and apparel, food production and service, parenting, and housing into a rigorous and relevant curriculum. Integration of the Family and Consumer Sciences student organization, Family Careers, and Community Leaders of America (FCCLA), enhances this curriculum.

Family and Consumer Sciences 2

Course Code	5809
Recommended Maximum Enrollment	24
Grade Level	9, 10 11, 12
Credits	1 (120 hours)
Prerequisite	Family and Consumer Sciences 1
Method of Delivery	F-2-F, Hybrid, Virtual

Family and Consumer Sciences 2 is a comprehensive course designed to build upon concepts learned in Family and Consumer Sciences 1. Units covered in this course are career, community, and family connections; consumer services; education and early childhood facilities management and maintenance; family and community services, food production and services, food science, dietetics, and nutrition; hospitality, tourism, and recreation; interpersonal relationships; interiors and furnishings; and textiles. Students will explore career pathways in Family and Consumer Sciences. Integration of the Family and Consumer Sciences student organization, Family Careers, and Community Leaders of America (FCCLA), enhances this curriculum.

Family Life Education

Course Code	5820
Recommended Maximum Enrollment	24
Grade Level	9, 10 11, 12
Credits	1 (120 hours)
Prerequisite	None
Method of Delivery	F-2-F, Hybrid, Virtual

Your body is not the only thing that needs to be healthy! What about your relationships? Learn how to make better choices by enrolling in Family Life Education. Family Life Education helps students understand and learn to apply various concepts to gain and maintain healthy relationships throughout their lives. Topics such as applying interpersonal skills in relationships, critiquing financial decisions, and determining risk factors of healthy lifestyles are included in the course content. Successful completion of the standards satisfies the Comprehensive Health Education Act requirements. Integration of the Family and Consumer Sciences student organization, Family Careers, and Community Leaders of America (FCCLA), standards enhance the curriculum.

Fashion, Fabric, and Design 1

Course Code	5804
Recommended Maximum Enrollment	24
Grade Level	9, 10 11, 12
Credits	1 (120 hours), 2 (240 hours)
Prerequisite	None
Method of Delivery	F-2-F, Hybrid, Virtual

Did you know that you can make clothing out of everyday items such as gum wrappers, tires, bamboo, and aluminum foil? Learn how textiles are woven into the fabric of life. Enroll in Fashion, Fabric, and Design 1 to develop skills in the selection, purchase, design, care, and construction of textile products. The course emphasizes critical thinking skills needed for making wise consumer choices and career decisions. Integration of the Family and Consumer Sciences Pre-Professional Assessment Certification (PrePAC) and the student organization, Family Careers and Community Leaders of America (FCCLA) competencies, enhances this curriculum.

Fashion, Fabric, and Design 2

Course Code	5805
Recommended Maximum Enrollment	24
Grade Level	9, 10 11, 12
Credits	1 (120 hours), 2 (240 hours)
Prerequisite	Fashion, Fabric, and Design 1
Method of Delivery	F-2-F, Hybrid, Virtual

Do you have a flair for creativity and an eye for fashion design? Why not enroll in Fashion, Fabric, and Design 2? This course is designed to advance skills in the selection, purchase, design, care, and construction of textile products. Contextual learning experiences further develop critical thinking skills needed for success in the professional environment and merchandising. Integration of the Family and Consumer Sciences Pre-Professional Assessment Certification (PrePAC) and the student organization, Family Careers and Community Leaders of America (FCCLA) competencies, greatly enhances this curriculum.

Financial Fitness

Course Code	5812
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	None
Method of Delivery	F-2-F, Hybrid, Virtual

Graduation is near and life after high school is quickly approaching! Are you ready? Take this course to satisfy the high school graduation credit and help to put you in control of your financial future. Financial Fitness is designed to help students develop financial management skills by evaluating marketplace alternatives, creating a personal budget, understanding consumer rights and responsibilities, understanding the impact of career choices on personal goals, and making informed consumer decisions. Learning experiences provide real life application concepts such as budgeting money, using credit, and avoiding scams, rip offs and identity theft and incorporate strategies to improve higher order thinking skills, the use of technology, problem solving skills, and characteristics of a responsible consumer. Integration of the Family and Consumer Sciences career and technical education student organization, Family Career, and Community Leaders of America greatly enhances this curriculum. **This course has been vetted and can be used to meet the personal finance graduation requirement.**

Foods and Nutrition 1

Course Code	5824
Recommended Maximum Enrollment	20
Grade Level	9, 10 11, 12
Credits	1 (120 hours)
Prerequisite	None
Method of Delivery	F-2-F, Hybrid

What foods should be eaten to maintain a healthy lifestyle? Can you select and prepare healthy foods? If not, this is the course for you! Food and Nutrition 1 will allow students to evaluate food choices, practice a variety of food preparation techniques, demonstrate table service and etiquette, and explore nutrition related careers. Critical thinking and practical problem-solving are emphasized in a co-curricular approach that incorporates principles of mathematics, science, writing, communications, and economics. The ServSafe® employee certification provides increased marketability. Foods and Nutrition 1 is a prerequisite for Foods and Nutrition 2. Inclusion of the Family and Consumer Sciences student organization, Family Careers, and Community Leaders of America (FCCLA), greatly enhances this curriculum.

Foods and Nutrition 2

Course Code	5825
Recommended Maximum Enrollment	20
Grade Level	9, 10 11, 12
Credits	1 (120 hours)
Prerequisite	Foods and Nutrition 1
Method of Delivery	F-2-F, Hybrid

How do food preparation, cooking methods, and presentation impact nutrition, taste, and flavor of food? Foods and Nutrition 2 builds on techniques learned in Foods and Nutrition 1. Emphasis is placed on the exploration of foods and meal planning in relation to nutrition and food science, customs, and preparation techniques. Kitchen safety and sanitation, resources management, and employability skills are integral parts of this course. The ServSafe® employee certification provides increased marketability. Foods and Nutrition 1 is a prerequisite for Foods and Nutrition 2. Inclusion of the Family and Consumer Sciences student organization, Family Careers, and Community Leaders of America (FCCLA), enhances this curriculum.

Housing and Interiors 1

Course Code	5830
Recommended Maximum Enrollment	20
Grade Level	9, 10 11, 12
Credits	1 (120 hours)
Prerequisite	None
Method of Delivery	F-2-F, Hybrid, Virtual

“Home is where the heart is,” and the house shelters that home. Enroll in this course to begin preparations for your future dream home. Housing and Interiors 1 provides opportunities for students to evaluate the housing market; housing needs for individuals, families, and communities; and career pathways in the housing and interiors industries. Identification of the elements and principles of design is emphasized. Students will develop knowledge and skills that enable them to plan safe and affordable homes for changing families in a world of diverse interests, cultures, and values. Projects are integrated throughout the course. Integration of the Family and Consumer Sciences Pre-Professional Assessment Certification (PrePAC) Housing and Furnishing competencies and the student organization, Family Careers and Community Leaders of America (FCCLA), enhances this curriculum.

Housing and Interiors 2

Course Code	5831
Recommended Maximum Enrollment	24
Grade Level	9, 10 11, 12
Credits	1 (120 hours)
Prerequisite	Housing and Interiors 1
Method of Delivery	F-2-F, Hybrid, Virtual

Dreams can become reality. Open the doors of your future home! Enroll in this course to get the key to your future home. Housing and Interiors 2 provides opportunities for students to apply the elements and principles of design in residential settings. Comprehensive design projects are integrated throughout the course. Interior backgrounds, furnishings, kitchen design, bathroom design, laundry design, traffic patterns, home element enhancements, professional practices, and marketing skills used in the industry are explored. Integration of the Family and Consumer Sciences Pre-Professional Assessment Certification (PrePAC) Housing and Furnishings competencies and the student organization, Family Careers and Community Leaders of America (FCCLA), enhances this curriculum.

Human Development: Responsible Life Choices

Course Code	5834
Recommended Maximum Enrollment	24
Grade Level	9, 10 11, 12
Credits	1 (120 hours)
Prerequisite	None
Method of Delivery	F-2-F, Hybrid, Virtual

Do you really know yourself? Has technology taken over your life to the point where you don't like to have a face-to-face conversation with another human being? Learn more about yourself by enrolling in this course. Human Development: Responsible Life Choices 1 addresses development and wellness of individuals and families. Current information is provided about the physical, psychological, and emotional maturation process. Unit topics include interpersonal relationships, family life education, adolescent development, health and wellness, pregnancy and parenthood, and careers. This course includes requirements specified in the Comprehensive Health Education Act. Integration of 21st Century Skills, the Family and Consumer Sciences Pre-Professional Assessment Certification (PrePAC) competencies and the student organization, Family, Career and Community Leaders of America (FCCLA) greatly enhances this curriculum.

Mental Health Fitness

Course Code	6108
Recommended Maximum Enrollment	24
Grade Level	9, 10 11, 12
Credits	1 (120 hours)
Prerequisite	None
Method of Delivery	F-2-F, Hybrid, Virtual

Mental Health Fitness is a project-based learning course that focuses on brain functions, adolescent mental health, wellness framework, interpersonal relationships, coping mechanisms, mental health human service career pathways, and employability skills. Students will learn to identify, understand, and respond to warning signs personally and those of their peers. They will develop skills to have supportive conversations and involve a responsible adult to intervene when needed. High quality elements are incorporated by offering opportunities for students to experience work-based learning, explore post-secondary opportunities, and earn industry recognized certifications. Integration of the intracurricular Family and Consumer Sciences student organization, Family, Careers, and Community Leaders of America (FCCLA) standards, provide opportunities for students to develop leadership skills and demonstrate knowledge, technical, and employability skills.

Nutrition and Wellness

Course Code	5759
Recommended Maximum Enrollment	24
Grade Level	9, 10 11, 12
Credits	1 (120 hours)
Prerequisite	None
Method of Delivery	F-2-F, Hybrid, Virtual

Nutrition and Wellness is designed for all students. This course examines the relationship between nutrition, physical performance, and overall wellness. Students will learn how to choose nutritious foods for healthy lifestyles and peak performance. Health and disease prevention through nutrition, physical activity, and wellness practices are essential components of the course. ServSafe® Food Handlers and Pre-Assessment and Certification (PrePAC) Nutrition Food and Wellness certifications provide increased marketability. Integration of the Family and Consumer Sciences co-curricular student organization, Family, Career and Community Leaders of America (FCCLA), enhances the curriculum.

Parenting Education

Course Code	5816
Recommended Maximum Enrollment	24
Grade Level	9, 10 11, 12
Credits	1 (120 hours)
Prerequisite	None
Method of Delivery	F-2-F, Hybrid, Virtual

Parenting Education emphasizes the importance of planning and preparing for parenthood. Learning experiences will focus on parenting practices that maximize human growth and development, the significance of health and wellness in parenting practices, issues to consider when faced with adolescent parenthood, roles, responsibilities, and rewards of parenting, management of resources across the lifespan, methods of family planning, and personal interests and career opportunities related to parenting education. Integration of concepts from the Family and Consumer Sciences co-curricular student organization – Family, Career and Community Leaders of America (FCCLA) – enhances the curriculum.

Sports Nutrition

Course Code	5760
Recommended Maximum Enrollment	24
Grade Level	9, 10 11, 12
Credits	1 (120 hours)
Prerequisite	NA
Method of Delivery	F-2-F, Hybrid, Virtual

Sports Nutrition 2 is an essential course in advancing the knowledge base of nutritional needs of the life cycle. The primary functions, best sources of each major nutrient are covered and include meal preparation strategies to preserve the nutrient content of foods. This course emphasizes the metabolic process and management of food choices for optimal health and physical performance. Integration of the Family and Consumer Sciences co-curricular student organization, Family, Career and Community Leaders of America (FCCLA) or SC HOSA Future Health Professionals, enhances the curriculum.

***Family and Consumer Sciences Internship, Work-Based Credit**

Course Code	5890
Recommended Maximum Enrollment	NA
Grade Level	11, 12
Credits	1 (120 hours)
Prerequisite	Completion of two (2) CTE courses/units within a program
Method of Delivery	F-2-F

Family and Consumer Sciences Internship is a structured, work-based credit bearing course that is taken as a component of state recognized Career and Technical Education (CTE) Classification of Instructional Programs (CIP)-coded programs for CTE students. Each work-based learning (credit-bearing) course has an assigned CTE course code, and guidelines must be followed to award one Carnegie unit of credit upon successful completion of the course.

***This course will not count as the third unit for a three-unit completer pathway nor a fourth unit in a four-unit completer pathway.**

Middle School – Information Technology Cluster

Discovering Computer Science Part 1 (.5 High School Credit for Middle School)

Course Code	5062
Recommended Maximum Enrollment	24
Grade Level	7, 8
Credits	.5 (60 hours)
Prerequisite	Keyboarding proficiency
Method of Delivery	F-2-F, Hybrid, Virtual

Discovering Computer Science students will discover introductory computer science topics with an emphasis on computational thinking and problem solving. Students will be empowered to create authentic artifacts and engage with computer science as a medium for creativity, communication, problem solving, and fun. Students will create their own websites, apps, and games. This course does not count for the Computer Science Graduation credit.

Discovering Computer Science Part 2 (.5 High School Credit for Middle School)

Course Code	5063
Recommended Maximum Enrollment	24
Grade Level	7, 8
Credits	.5 (60 hours)
Prerequisite	Keyboarding proficiency
Method of Delivery	F-2-F, Hybrid, Virtual

Discovering Computer Science students will discover introductory computer science topics with an emphasis on computational thinking and problem solving. Students will be empowered to create authentic artifacts and engage with computer science as a medium for creativity, communication, problem solving, and fun. Students will create their own websites, apps, and games. This course does not count for the Computer Science Graduation credit.

Fundamentals of Computing Part 1 (.5 High School Credit for Middle School)

Course Code	5028
Recommended Maximum Enrollment	24
Grade Level	7, 8
Credits	.5 (60 hours)
Prerequisite	Keyboarding proficiency
Method of Delivery	F-2-F, Hybrid, Virtual

Fundamentals of Computing Part 1 is designed to introduce students to the field of computer science through an exploration of engaging and accessible topics. Through creativity and innovation, students will use critical thinking and problem-solving skills to implement projects that are relevant to students' lives. They will create a variety of computing artifacts while collaborating in teams. Students will gain a fundamental understanding of the history and operation of computers, programming, and web design. Students will also be introduced to computing careers and will examine societal and ethical issues of computing. Successful completion of Fundamentals of Computing 1 and 2 are required to be able to count as the Computer Science course for Graduation Credit.

Fundamentals of Computing Part 2 (.5 High School Credit for Middle School)

Course Code	5029
Recommended Maximum Enrollment	24
Grade Level	7, 8
Credits	.5 (60 hours)
Prerequisite	Keyboarding proficiency
Method of Delivery	F-2-F, Hybrid, Virtual

Fundamentals of Computing Part 2 is designed to introduce students to the field of computer science through an exploration of engaging and accessible topics. Through creativity and innovation, students will use critical thinking and problem-solving skills to implement projects that are relevant to students' lives. They will create a variety of computing artifacts while collaborating in teams. Students will gain a fundamental understanding of the history and operation of computers, programming, and web design. Students will also be introduced to computing careers and will examine societal and ethical issues of computing. Successful completion of Fundamentals of Computing 1 and 2 are required to be able to count as the Computer Science course for Graduation Credit.

High School – Information Technology Cluster

Advanced Animation

Course Code	5351
Recommended Maximum Enrollment	24
Grade Level	11, 12
Credits	1 (120 hours)
Prerequisite	Keyboarding proficiency <u>and</u> Foundations of Animation
Method of Delivery	F-2-F, Hybrid, Virtual

Advanced Animation teaches students how to use Autodesk Maya to model, animate, and render with a focus on establishing a working knowledge of animation tools and techniques. Emphasis is placed on career awareness, fundamentals of modeling, storyboard creation, cameras, and lighting. Students will learn how 3D technology is used for film, broadcast, and games. This course prepares students for the Autodesk Certified User for Maya certification exam.

Advanced Computer Operating Systems

Course Code	5323
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours), 2 (240 hours)
Prerequisite	IT Fundamentals or Computer Repair and Service
Method of Delivery	F-2-F, Hybrid, Virtual

In the Advanced Computer Operating Systems course, students explore characteristics and features of a variety of operating systems. Students will gain application support and desktop support skills including installation and monitoring of an operating system, managing access for users and groups, managing hardware and applications, and working with networks, printing, and security. Students will learn how to install, configure, and maintain devices within a corporate server environment. They will also learn how to configure local and remote network connectivity and storage, explore how to configure data security, device security, and network security. In addition, students will discover how to maintain, update, and recover devices. Upon completion of the two courses, students will be prepared to earn nationally recognized industry certifications. One computer per student with Internet access should be available.

Advanced Computer Programming

Course Code	5376
Recommended Maximum Enrollment	24
Grade Level	11, 12
Credits	1 (120 hours)
Prerequisite	Beginning Computer Programming, Intermediate Computer Programming
Method of Delivery	F-2-F, Hybrid, Virtual

Advanced Computer Programming is the capstone course in the Programming and Software Development program. Students are expected to use advanced skills and knowledge from Introduction and Intermediate Computer Programming. The purpose of the course is to allow students to develop a project that demonstrates accumulated skills in time-management, research, problem-solving, human interaction, organization, and public-speaking as related to computer science and that has a meaningful impact on industry and community stakeholders.

Advanced Computer Repair and Service

Course Code	5321
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours), 2 (240 hours)
Prerequisite	Keyboarding proficiency <u>and</u> Computer Repair and Service <u>and/or</u> passing score on applicable industry certification such as CompTIA A+ 220-801
Method of Delivery	F-2-F, Hybrid, Virtual

The Advanced Computer Repair and Service course is a continuation of the Computer Repair and Service course. It prepares students to perform advanced, detailed tasks related to computer repair. Students receive instruction in operating systems, security, mobile devices, and troubleshooting. Laboratory activities provide instruction in installation, configuration, operation, maintenance, security, troubleshooting, and repair of industry-standard operating systems in accordance with industry certification standards.

Advanced Cyber Security

Course Code	5372
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours), 2 (240 hours)
Prerequisite	Cyber Security Fundamentals
Method of Delivery	F-2-F, Hybrid, Virtual

In Advanced Cyber Security, the second course in the Computer and Information Systems Security/Information Assurance program, students will examine the advanced concepts and terminology of cyber security and information assurance, secure systems and networks against threats, attacks, and vulnerabilities by implementing appropriate architecture and design, implementation of security protocols and controls, operations and incident responses, governance, risk management and compliance. Upon completion of the two courses, students will be prepared to earn industry professional certification(s).

Advanced Networking

Course Code	5311
Recommended Maximum Enrollment	20
Grade Level	10, 11, 12
Credits	1 (120 hours), 2 (240 hours)
Prerequisite	Networking Fundamentals
Method of Delivery	F-2-F, Hybrid, Virtual

Students in the Networking program will perform networking tasks commonly performed by systems administrators, network administrators, network engineers and related careers. Students manage hardware and software network components including IP configuration, setting up wireless and wired networks, managing networks, basic network security, software updates, hardware upgrades and network protocols. Students will learn about configuring and maintaining networks in home and corporate environments. Upon completion of the two courses, students will be prepared to earn nationally recognized industry certifications. One computer per student with Internet access should be available.

Advanced Server Administration

Course Code	5313
Recommended Maximum Enrollment	20
Grade Level	10, 11, 12
Credits	1 (120 hours), 2 (240 hours)
Prerequisite	Server Administration
Method of Delivery	F-2-F, Hybrid, Virtual

In Advanced Server Administration, students learn the concepts and practices of server administration, including server architecture, server management and maintenance, software installation and configuration, troubleshooting, storage management, networking configuration and management, security and disaster recovery, virtualization, and shell scripting. Upon completion of the two courses, students will be prepared to earn nationally recognized industry certifications.

Advanced Web Page Design and Development

Course Code	5033
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1(120 hours)
Prerequisite	Keyboarding proficiency <u>and</u> Fundamentals of Web Page Design and Development
Method of Delivery	F-2-F, Hybrid, Virtual

The Advanced Web Page Design and Development course is designed to provide students with the knowledge and skills necessary to pursue careers in web design and development. Students will develop an in-depth understanding and use of HTML, CSS, JavaScript, layout techniques, and other industry-standard practices. In addition, students will learn scripting technologies to create dynamic, responsive, and interactive websites. Students may maintain a professional quality portfolio of web design work. Successful completion of this course will prepare students for industry certification.

Artificial Intelligence 1

Course Code	57M1
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	Introduction to Artificial Intelligence
Method of Delivery	F-2-F, Hybrid, Virtual

Artificial Intelligence 1 assists students in deepening understanding for application of AI and to explore methods and tools utilized to build AI models. The content includes but is not limited to foundational knowledge and skills related to methods and software used to develop AI applications using data sets. Instruction and learning activities are provided in a laboratory setting using hands-on experiences with the equipment, materials, and technology appropriate to the course content and in accordance with current practices.

Computer Forensics

Course Code	5374
Recommended Maximum Enrollment	25
Grade Level	10, 11, 12
Credits	1 (120 hours), 2 (240 hours)
Prerequisite	IT Fundamentals or Computer Repair and Service 1
Method of Delivery	F-2-F, Hybrid, Virtual

In the Computer Forensics course, students gain a fundamental knowledge of computer forensics and investigation of computer-related crimes. They will learn to collect, preserve, present, and prepare computer-based evidence for the purposes of criminal law enforcement or civil litigation. Students will have the opportunity to present digital evidence to both business and legal audiences. Students will learn to use tools to locate and analyze digital evidence on a variety of devices, how to keep up to date with changing technologies, and laws and regulations in digital forensics.

Computer Operating Systems

Course Code	5322
Recommended Maximum Enrollment	20
Grade Level	10, 11, 12
Credits	1 (120), 2 (240)
Prerequisite	IT Fundamentals or Computer Repair and Service
Method of Delivery	F-2-F, Hybrid, Virtual

In Computer Operating Systems, students explore characteristics and features of a variety of operating systems. Students will gain application support and desktop support skills including installation and monitoring of an operating system, managing access for users and groups, managing hardware and applications, and working with networks, printing, and security. Students will learn how to install, configure and maintain devices within a corporate server environment. They will also learn how to configure local and remote network connectivity and storage, explore how to configure data security, device security, and network security. In addition, students will discover how to maintain, update, and recover devices. Upon completion of the two courses, students will be prepared to earn nationally recognized industry certifications.

Computer Programming 1 with C++

Course Code	5056
Recommended Maximum Enrollment	24
Grade Level	9, 10, 11, 12
Credits	1 (120 hours)
Prerequisite	Keyboarding proficiency <u>and</u> any high school computer science course, Algebra 1 (or equivalent), and/or Teacher Recommendation
Method of Delivery	F-2-F, Hybrid, Virtual

Computer Programming with C++ 1 is designed to emphasize the fundamentals of computer programming. Topics include computer software, program design and development, and practical experience in programming, using modern, object-oriented languages.

Computer Programming 2 with C++

Course Code	5057
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	Keyboarding proficiency <u>and</u> Computer Programming 1 with C++
Method of Delivery	F-2-F, Hybrid, Virtual

Computer Programming with C++ 2 is designed to emphasize the fundamentals of computer programming. Topics include computer software, program design and development, and practical experience in programming, using modern, object-oriented languages.

Computer Programming 1 with Java

Course Code	5052
Recommended Maximum Enrollment	24
Grade Level	9, 10, 11, 12
Credits	1 (120 hours)
Prerequisite	Keyboarding proficiency <u>and</u> any high school computer science course, Algebra 1 (or equivalent), <u>and/or</u> Teacher Recommendation
Method of Delivery	F-2-F, Hybrid, Virtual

Computer Programming with Java 1 is designed to emphasize the fundamentals of computer programming. Topics include computer software, program design and development, and practical experience in programming, using modern, object-oriented languages.

Computer Programming 2 with Java

Course Code	5053
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	Keyboarding proficiency <u>and</u> Computer Programming 1 with JAVA
Method of Delivery	F-2-F, Hybrid, Virtual

Computer Programming with Java 2 is designed to emphasize the fundamentals of computer programming. Topics include computer software, program design and development, and practical experience in programming, using modern, object-oriented languages.

Computer Programming 1 with Python

Course Code	5064
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	Keyboarding proficiency <u>and</u> any high school computer science course, Algebra 1 (or equivalent), <u>and/or</u> Teacher Recommendation
Method of Delivery	F-2-F, Hybrid, Virtual

Computer Programming 1 with Python is designed to emphasize the fundamentals of computer programming. Topics include computer software, program design and development, and practical experience in programming, using modern, object-oriented languages.

Computer Programming 2 with Python

Course Code	5065
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	Keyboarding proficiency <u>and</u> Computer Programming 1 with Python
Method of Delivery	F-2-F, Hybrid, Virtual

Computer Programming 2 with Python is designed to emphasize the fundamentals of computer programming. Topics include computer software, program design and development, and practical experience in programming, using modern, object-oriented languages.

Computer Programming 1 with Swift

Course Code	5066
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	Keyboarding proficiency <u>and</u> any high school computer science course, Algebra 1 (or equivalent), <u>and/or</u> Teacher Recommendation
Method of Delivery	F-2-F, Hybrid, Virtual

Computer Programming 1 with Swift is designed to emphasize the fundamentals of computer programming. Topics include computer software, program design and development, and practical experience in programming, using modern, object-oriented languages.

Computer Programming 2 with Swift

Course Code	5067
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	Keyboarding proficiency <u>and</u> Computer Programming 1 with Swift
Method of Delivery	F-2-F, Hybrid, Virtual

Computer Programming 2 with Swift is designed to emphasize the fundamentals of computer programming. Topics include computer software, program design and development, and practical experience in programming, using modern, object-oriented languages.

Computer Programming 1 with Visual Basic

Course Code	5054
Recommended Maximum Enrollment	24
Grade Level	9, 10, 11, 12
Credits	1 (120 hours)

Keyboarding proficiency and any high school computer course, Algebra 1 (or equivalent), and/or Teacher Recommendation

Method of Delivery F-2-F, Hybrid, Virtual

Computer Programming with Visual Basic 1 is designed to emphasize the fundamentals of computer programming. Topics include computer software, program design and development, and practical experience in programming, using modern, object-oriented languages.

Computer Programming 2 with Visual Basic

Course Code	5055
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	Keyboarding Proficiency <u>and</u> Computer Programming 1 with Visual Basic
Method of Delivery	F-2-F, Hybrid, Virtual

Computer Programming with Visual Basic 2 is designed to emphasize the fundamentals of computer programming. Topics include computer software, program design and development, and practical experience in programming, using modern, object-oriented languages.

Computer Repair and Service

Course Code	5320
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours), 2 (240 hours)
Prerequisite	Keyboarding proficiency <u>and</u> Recommendations based on individual schools and school districts
Method of Delivery	F-2-F, Hybrid, Virtual

The Computer Repair and Service course prepares students to perform tasks related to computer repair. Students receive instruction in the installation, operation, maintenance, and repair of computer-based technology. Instruction may also include mobile devices, peripheral devices, networking, and laptops. Laboratory activities provide instruction in installation, configuration, troubleshooting, component replacement, operating systems, and upgrades in accordance with industry certification standards.

Cyber Security Fundamentals

Course Code	5370
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours), 2 (240 hours)
Prerequisite	Fundamentals of Computing or IT Fundamentals
Method of Delivery	F-2-F, Hybrid, Virtual

In Cyber Security Fundamentals, the first course in the Computer and Information Systems Security/Information Assurance program, students examine the core concepts and terminology of cyber security and information assurance, integrating the importance of cyber threats and vulnerabilities, computer and network architecture, network security, operating systems, operational security, cryptography, system security, incident handling, and other topics that prepare students for the Advanced Cyber Security course. Upon successful completion of this first course, students will be prepared to earn an entry-level career-ready certification.

Database Design and Programming with SQL

Course Code	5324
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours), 2 (240 hours)
Prerequisite	Keyboarding proficiency <u>and</u> Basic computer skills (word processing, Internet use) <u>and</u> recommended successful completion of Algebra 1
Method of Delivery	F-2-F, Hybrid, Virtual

Database Design and Programming with structured query language (SQL) is geared to meet the learning needs of a variety of students, from those interested in gaining broad exposure to business and technical skills to students planning on pursuing a technical education or career. This course utilizes an Oracle hosted, state-of-the-art lab environment to build database design and programming skills. Students analyze case studies to identify data patterns and connections to design relational databases. Students create entity relationship diagrams (ERDs) while building collaboration and problem-solving skills. Students build and modify databases using SQL, the industry-standard database programming language.

Database Programming with PL/SQL

Course Code	5326
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours), 2 (240 hours)
Prerequisite	Keyboarding proficiency <u>and</u> Database Design & Programming with SQL
Method of Delivery	F-2-F, Hybrid, Virtual

Database Programming with PL/SQL covers a procedural language extension to SQL. Through an innovative project-based approach, students learn programming logic constructs such as variables, constants, conditional statements, and iterative controls. The course blends hands-on exercises, industry-type assessments, and project-based learning experiences while leveraging the latest Oracle technologies. Students utilize an Oracle hosted, state-of-the-art lab environment to develop database programming skills using PL/SQL and Oracle Application Express. Students continue to improve skills including problem solving, teamwork, project management, and technical presentations that are used in a variety of industries and job roles.

Discovering Computer Science

Course Code	5061
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	Keyboarding proficiency
Method of Delivery	F-2-F, Hybrid, Virtual

Discovering Computer Science students will discover introductory computer science topics with an emphasis on computational thinking and problem solving. Students will be empowered to create authentic artifacts and engage with computer science as a medium for creativity, communication, problem solving, and fun. Students will create their own websites, apps, and games.

Foundations of Animation

Course Code	5350
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	Keyboarding proficiency <u>and</u> high school Computer Science Course
Method of Delivery	F-2-F, Hybrid, Virtual

Foundations of Animation prepares students to use artistic and technological foundations to create animations. The basic principles of digital animation are reviewed, including character development and story conception through production. Students learn the technical language used in the animation industry and basic animation methods. They will also learn techniques about various ways to plan, create, and prepare for animation in pre-production, production and post-production. This course prepares students for the Adobe Certified Associate for Flash/Animate Creative Cloud (CC) certification exam.

Fundamentals of Computing

Course Code	5023
Recommended Maximum Enrollment	24
Grade Level	9, 10
Credits	1 (120 hours)
Prerequisite	Keyboarding proficiency
Method of Delivery	F-2-F, Hybrid, Virtual

Fundamentals of Computing is designed to introduce students to the field of computer science through an exploration of a variety of computing topics. Through creativity and innovation, students will use critical thinking and problem-solving skills to implement projects that are relevant to students' lives. They will create a variety of computational artifacts through individual and team projects. Students will gain a fundamental understanding of the operation of computers, programming, web design, computational data, physical computing, machine learning, societal and ethical issues of computing. Students will also be introduced to computing careers and how computing is an essential supporting aspect of all other career fields.

Fundamentals of Web Page Design and Development

Course Code	5031
Recommended Maximum Enrollment	24
Grade Level	9, 10, 11, 12
Credits	1(120 hours)
Prerequisite	Keyboarding proficiency
Method of Delivery	F-2-F, Hybrid, Virtual

The Fundamentals of Web Page Design and Development course will guide students in the development of websites in a project-based, problem-solving environment. Students will learn HTML to organize website content and CSS to format the appearance of website content to develop websites that are well-organized, universally accessible, and easy to navigate. Students will learn the technological processes, requirements, and legal ramifications for publishing their websites. Successful completion of this course will prepare students for certification.

NOTE: Websites created by students in this course are not to be published without following district guidelines.

Game Design and Development

Course Code	5352
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	Keyboarding proficiency <u>and</u> any Computer Programming course <u>and/or</u> Teacher Recommendation
Method of Delivery	F-2-F, Hybrid, Virtual

Game Design and Development provides students with the opportunity to design and develop fully functional video games with product design documentation. This course emphasizes game control and logic, design tools, and the physics of games using computer programming.

GIS 1

Course Code	5361
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	Keyboarding proficiency <u>and</u> Algebra I, Geometry, <u>and</u> Integrated Business Applications I <u>or</u> Teacher Recommendation
Method of Delivery	F-2-F, Hybrid, Virtual

Geographical Information Systems (GIS) 1 is designed to include fundamentals of Geographical Information Systems (GIS) and remote sensing concepts, project management strategies, and essential basic computer skills. Students will acquire a basic understanding of geographic terms and concepts necessary for the appropriate use of GIS, including concepts of spatial variables, scale, map projection, and map coordinate systems. Students will also be exposed to the history of GIS, how GIS fits into overall information management systems, and a variety of applications in which GIS can contribute to analysis and decision-making.

GIS 2

Course Code	5362
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	Keyboarding proficiency and GIS Technology 1
Method of Delivery	F-2-F, Hybrid, Virtual

Geographical Information Systems (GIS) 2 is designed to enable/prepare students to use their knowledge of mapping and cataloging to complete numerous geospatial applications. They will learn techniques in displaying, managing, querying, symbolizing, and creating geospatial data. Students will learn the skills required to work on and/or build advanced GIS/RS projects.

Information Systems

Course Code	5377
Recommended Maximum Enrollment	20
Grade Level	9, 10, 11, 12
Credits	1 (120 hours)
Prerequisite	Business Data Applications (Recommended)
Method of Delivery	F-2-F, Hybrid, Virtual

Students in the Information Systems course will study the flow and structure of information within a system. They will examine common techniques for managing and manipulating data such as relational and other database management systems, electronic data interchange, automated data analysis, and machine learning. Students will also gain practical skills in managing and manipulating data using some of these techniques.

Informatics 1: Computers, Networks and Databases

Course Code	6891
Recommended Maximum Enrollment	24
Grade Level	9, 10, 11, 12
Credits	1 (120 hours)
Prerequisite	None
Method of Delivery	F-2-F, Hybrid, Virtual

This project-based-learning course engages students who are curious about informatics. Students will learn how to use a design process to create systems that acquire, store, and communicate data for a variety of career fields. Students will work collaboratively in teams to design systems, solve problems, think critically, be creative and communicate with each other and business partners. Students will participate in real-world experiences such as designing an inventory system for a retail store, comparing stores in a company to project future sales, track customer buying habits and more.

Informatics 2: Design for the Digital World

Course Code	6892
Recommended Maximum Enrollment	24
Grade Level	9, 10, 11, 12
Credits	1 (120 hours)
Prerequisite	Computer, Networks, and Databases
Method of Delivery	F-2-F, Hybrid, Virtual

This project-based-learning course engages students who are interested in applying the design process to create systems such as a cloud-based digital storage system for images. Students will design a system to automatically collect and report data on highway usage. They will apply a geospatial system to map a store and develop a database that studies shopping habits. Through these projects, students will learn about data management and logic-based queries by collecting data, using the Global Positioning System (GPS) and analyzing data utilizing a geographic information system (GIS). They will learn how to automate data collection to make processes more effective and efficient. Students will work collaboratively in teams and demonstrate their knowledge and skills by presenting new and innovative ideas, techniques and solutions to business and industry partners.

Informatics 3: Databases in the Cloud

Course Code	6893
Recommended Maximum Enrollment	24
Grade Level	9, 10, 11, 12
Credits	1 (120 hours)
Prerequisite	Design for the Digital World
Method of Delivery	F-2-F, Hybrid, Virtual

This project-based learning course is for students who successfully completed courses 1 and 2 and who want to tackle the more complex challenges that business and industry face. Students at this level will learn about Web technologies, cloud storage, information security, data, animation, introductory computer programming and database applications. Students will take more responsibility for their own learning, problem solving, and thinking outside of the box. Real-world challenges will require higher levels of research, building, testing, analyzing and improving systems. Students will develop solutions for real-world problems by designing a database for ticket sales; designing security for a database; creating a game with animation; reporting information based on population data in a community; and designing, building and testing an application for a database.

Informatics 4: Developing a Cloud Presence

Course Code	6894
Recommended Maximum Enrollment	24
Grade Level	9, 10, 11, 12
Credits	1 (120 hours)
Prerequisite	Databases in the Cloud
Method of Delivery	F-2-F, Hybrid, Virtual

Students in this capstone course will focus on the ethics of privacy, social networking, designing for clients and artificial intelligence through six authentic projects. Students will select a business partner and design, build and test a Web presence for a company that will apply the concepts from the three prior courses. Student teams will work collaboratively with a business partner to develop a proposal for the project with evaluation criteria. Once the business partner accepts the proposal, the student team will implement it by designing, planning, building the system, and testing and revising the system to meet the needs of the business. Depending on articulation agreements or state policy, the opportunity for dual credit may be available to students who successfully complete this course.

Intermediate Computer Programming

Course Code	5051
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	Keyboarding proficiency <u>and</u> Computer Programming 1 using the same language
Method of Delivery	F-2-F, Hybrid, Virtual

Computer Programming 2 is designed to emphasize the fundamentals of computer programming. Topics include computer software, program design and development, and practical experience in programming, using modern, object-oriented languages.

Introduction to Artificial Intelligence

Course Code	57M0
Recommended Maximum Enrollment	24
Grade Level	9, 10, 11, 12
Credits	1 (120 hours)
Prerequisite	Introductory Computer Science Course
Method of Delivery	F-2-F, Hybrid, Virtual

Artificial Intelligence involves simulating intelligent behavior in computers, encompassing programming, data science, mathematical reasoning, creative problem-solving, ethics, and practical experiences. With the increasing demand for AI skills, traditional careers like Data Analyst or Software Developer are evolving to incorporate AI solutions. The Introduction to Artificial Intelligence course introduces students to essential AI concepts, preparing them to comprehend common applications, tackle real-world challenges, and develop solutions using advanced technologies.

Introduction to Computer Programming

Course Code	5050
Recommended Maximum Enrollment	24
Grade Level	9, 10, 11, 12
Credits	1 (120 hours)
Prerequisite	Keyboarding proficiency
Method of Delivery	F-2-F, Hybrid, Virtual

Computer Programming 1 is designed to emphasize the fundamentals of computer programming. Topics include computer software, program design and development, and practical experience in programming, using modern, object-oriented languages.

IT Fundamentals

Course Code	5025
Recommended Maximum Enrollment	24
Grade Level	9, 10, 11
Credits	1 (120 hours)
Prerequisite	Keyboarding proficiency
Method of Delivery	F-2-F, Hybrid, Virtual

IT Fundamentals is designed to prepare the student to take the CompTIA IT Fundamentals (ITF+ Exam FC0-U61) certification exam. Instruction includes IT concepts and terminology, infrastructure, applications and software, software development Concepts, Database Fundamentals, Security, emerging technologies, computational thinking, and career development. Students utilize the skills and qualities of the S.C. Profile of the Graduate to analyze and solve problems within the IT industry.

Java Fundamentals and Java Programming

Course Code	5058
Recommended Maximum Enrollment	24
Grade Level	11, 12
Credits	1 (120 hours)
Prerequisite	Keyboarding proficiency <u>and</u> Algebra 2
Method of Delivery	F-2-F, Hybrid, Virtual

Java Fundamentals and Java Programming is Oracle designed curriculum that introduces fundamental programming concepts and terminology in an engaging manner through the creation of simple animations and interactive games using Object Oriented Programming (OOP) environments. While mastering basic programming constructs using OOP, students will learn basic Java syntax. Using a popular, industry recognized Java Integrated Development Environment (IDE) and the Java programming language, students will write, edit, compile, deploy, and debug Java programs. Java classes, arrays, stacks, strings, and the core Application Program Interfaces (API) that are used to design object-oriented applications will be covered. The GridWorld case study is closely examined and used to enhance student knowledge of core Java concepts. As in other Oracle courses, collaboration and problem solving are emphasized throughout the course.

Mobile Applications Development

Course Code	5378
Recommended Maximum Enrollment	24
Grade Level	11, 12
Credits	1 (120 hours)
Prerequisite	Fundamentals of Web Page Design and Development, Fundamentals of Computing, OR Introduction to Computer Programming
Method of Delivery	F-2-F, Hybrid, Virtual

In Mobile Applications Development, students will explore basic development, building, and programming of various software applications for mobile devices. Students will also work hands-on individually or in teams and document their progress. Topics discussed include mobile devices, design and development concepts, testing, deployment, marketing, industry specifications. 21st Century skills of collaboration, creativity, decision-making, and teamwork are stressed throughout the course.

Networking Fundamentals

Course Code	5310
Recommended Maximum Enrollment	20
Grade Level	9, 10, 11, 12
Credits	1 (120 hours), 2 (240 hours)
Prerequisite	None
Method of Delivery	F-2-F, Hybrid, Virtual

Students in the Networking program will perform networking tasks commonly performed by systems administrators, network administrators, network engineers and related careers. Students manage hardware and software network components including IP configuration, setting up wireless and wired networks, managing networks, basic network security, software updates, hardware upgrades and network protocols. Students will learn about configuring and maintaining networks in home and corporate environments. Upon completion of the two courses, students will be prepared to earn nationally recognized industry certifications.

Physical Computing and Control Systems

Course Code	5379
Recommended Maximum Enrollment	24
Grade Level	9, 10, 11, 12
Credits	1 (120 hours)
Prerequisite	Introductory Computer Science Course
Method of Delivery	F-2-F, Hybrid, Virtual

Students in the Physical Computing and Control Systems course will explore basic development, building, and programming of various computing devices. Students will also work hands-on in teams and document their progress. Topics discussed include hardware, software, programming, electronic theory and computing devices, including motor controls, gear ratios, torque, friction, sensors, timing, program loops, logic gates, timing sequences, and propulsion systems. 21st century skills of collaboration, creativity, decision-making, and teamwork are stressed throughout the course.

PLTW – Computer Science A (CSA)

Course Code	6373
Recommended Maximum Enrollment	24
Grade Level	9, 10, 11, 12
Credits	1 (120 hours)
Prerequisite	None
Method of Delivery	F-2-F, Hybrid, Virtual

CSA focuses on integrating technologies across multiple platforms and networks, including the Internet. Students collaborate to produce programs that integrate mobile devices and leverage those devices for distributed collection and data processing. Students analyze, adapt, and improve each other's programs while working primarily in Java™ and other industry-standard tools. This course prepares students for the AP Computer Science-A course.

PLTW – Computer Science Essentials (CSE)

Course Code	6372
Recommended Maximum Enrollment	24
Grade Level	9, 10, 11, 12
Credits	1 (120 hours)
Prerequisite	Keyboarding Proficiency
Method of Delivery	F-2-F, Hybrid, Virtual

Computer Science Essentials (CSE) will expose students to a diverse set of computational thinking concepts, fundamentals, and tools, allowing them to gain understanding and build confidence. Students will use visual, block-based programming and seamlessly transition to text-based programming with languages such as Python to create apps, develop websites, and learn how to make computers work together to put their design into practice. They will apply computational thinking practices, build their vocabulary, and collaborate just as computing professionals do to create products that address topics and problems important to them. Computer Science Essentials helps students create a strong foundation to advance to Computer Science Principles, Computer Science A, and beyond.

PLTW – Computer Science Principles (CSP)

Course Code	6377
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	Keyboarding Proficiency
Method of Delivery	F-2-F, Hybrid, Virtual

CSP introduces students to the foundational concepts of computer science and challenges them to explore how computing and technology can impact the world. With a unique focus on creative problem solving and real-world applications, CSP prepares students for college and career.

PLTW – Cybersecurity

Course Code	6378
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	Any high school computer science course
Method of Delivery	F-2-F, Hybrid, Virtual

This course provides students with a broad exposure to the many aspects of digital and information security, while encouraging socially responsible choices and ethical behavior. It inspires algorithmic and computational thinking, especially “outside-the-box” thinking. Students explore the many educational and career paths available to cybersecurity experts, as well as other careers that comprise the field of information security. Cybersecurity is designed with strong connections to the National Cybersecurity Workforce Framework (also known as the NICE Framework or NCWF). Created by the National Institute of Standards and Technology (NIST), this framework identifies standards that have been developed by numerous academic, industry, and government organizations. The objectives also incorporate many of the big ideas and learning objectives outlined by the College Board and addressed in AP CSP and AP CSA. In addition, the course integrates Computer Science Teachers Association (CSTA) standards.

SAS Programming 1

Course Code	5327
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	Keyboarding proficiency <u>and</u> Algebra 1 <u>and</u> at least one other programming language (Visual Basic C++ or Java)
Method of Delivery	F-2-F, Hybrid, Virtual

Statistical Analysis System (SAS) Programming 1 is designed to increase student skills in business analytical software and services through the use of SAS for qualitative analysis. SAS knowledge can assist students with careers in technology, marketing, financial services, insurance, and pharmaceutical sectors. This course teaches the SAS programming language concepts and principles required for the SAS Base programming certification exam.

SAS Programming 2

Course Code	5328
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	Keyboarding proficiency <u>and</u> SAS Programming 1
Method of Delivery	F-2-F, Hybrid, Virtual

Statistical Analysis System (SAS) Programming 2 is designed to increase student skills in business analytical software and services through the use of SAS for qualitative analysis. SAS knowledge can assist students with careers in technology, marketing, financial services, insurance, and pharmaceutical sectors. This course teaches the SAS programming language concepts and principles required for the SAS Base programming certification exam.

Server Administration

Course Code	5312
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120), 2 (240)
Prerequisite	Advanced Networking
Method of Delivery	F-2-F, Hybrid, Virtual

In the Server Administration courses, students learn the concepts and practices of server administration, including server architecture, server management and maintenance, software installation and configuration, troubleshooting, storage management, networking configuration and management, security and disaster recovery, virtualization, and shell scripting. Upon completion of the two courses, students will be prepared to earn nationally-recognized industry certifications.

***Information Technology Internship, Work-Based Credit**

Course Code	5390
Recommended Maximum Enrollment	NA
Grade Level	11, 12
Credits	1 (120 hours)
Prerequisite	Keyboarding proficiency <u>and</u> completion of two (2) CTE courses/units within a program
Method of Delivery	F-2-F, Hybrid

The Information Technology Internship is a structured, work-based credit bearing course that is taken as a component of state recognized Career and Technical Education (CTE) Classification of Instructional Programs (CIP)-coded programs for CTE students. Each work-based learning (credit-bearing) course has an assigned CTE course code, and guidelines must be followed to award one Carnegie unit of credit upon successful completion of the course.

***This course will not count as the third unit for a three-unit completer pathway nor a fourth unit in a four-unit completer pathway.**

Law, Public Safety, Corrections & Security Cluster

Firefighter 1, 2, 3

Course Codes	6514, 6515, 6516
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	Level 1 - 2 (240 hours); Level 2 - 1 (120 hours)
Prerequisite	Level 1 prerequisite for Level 2, Level 2 a prerequisite for Level 3
Method of Delivery	F-2-F, Hybrid, Virtual

This program prepares individuals to do the work of fire fighters. Firefighter 1, 2, 3, courses intended to achieve National Fire Protection Agency (NFPA) certification must be conducted using curriculum that addresses the NFPA standards. Firefighter I, Firefighter II, Hazardous Materials Awareness (HMA), Hazardous Materials Operations (HMO) and Basic Auto Extrication (BAE 3330) curriculum materials can be acquired from the South Carolina Fire Academy (SCFA). For complete descriptions of SCFA's courses, see the Academy's online catalog at [SC Department of Labor, Licensing and Regulations](#). Curriculum for First Aid/Cardiopulmonary Resuscitation (CPR) prerequisite training may be based on any recognized accredited course, such as those offered through the American Heart Association or American Red Cross. Hazardous Materials Awareness and Hazardous Materials Operations prerequisites must comply with NFPA 472, *Standard for Competence of Responders to Hazardous Materials/Weapons of Mass Destruction Incidents*.

Introduction to Law, Public Safety, Corrections, & Security

Course Code	6505
Recommended Maximum Enrollment	24
Grade Level	8, 9
Credits	1 (120 hours)
Prerequisite	None
Method of Delivery	F-2-F, Hybrid, Virtual

Introduction to Law, Public Safety, Corrections and Security and Law Enforcement Services provides basic career information in public safety including corrections, emergency and fire management, security and protection, law enforcement, and legal services. Additionally, students will develop a personal plan for a career in public safety. The course includes skills in each area of Law Enforcement Services and Fire Fighter and the community to help deliver instruction to the students. English language arts are reinforced, and Work-based learning strategies appropriate for this course include job shadowing. Apprenticeship and cooperative education are not available for this course. SkillsUSA competitive events, community service, and leadership activities provide the opportunity to apply essential standards and workplace readiness skills through authentic experiences.

Law Enforcement Services 1, 2

Course Codes	6510, 6511
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours), 2 (240 hours) per course code
Prerequisite	Level 1 prerequisite for Level 2
Method of Delivery	F-2-F, Hybrid, Virtual

Law and Enforcement Services 1 and 2 prepare individuals to perform the duties of police and public security officers, including patrol and investigative activities, traffic control, crowd control and public relations, witness interviewing, evidence collection and management, basic crime prevention methods, weapon and equipment operations and maintenance, report preparation and other routine law enforcement responsibilities.

Legal Systems Technology 1

Course Code	6526
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	Digital Literacy Proficiency
Method of Delivery	F-2-F, Hybrid, Virtual

Legal Systems Technology 1 is designed to provide an overview of the major responsibilities and tasks in a paralegal support position. The objectives of the course are to enhance technology and communication skills; solve legal-oriented problems; manage processes and procedures of legal organizations; and demonstrate effective professional knowledge and personal qualities and employability skills desired for a law-related career. One computer required per student.

Legal Systems Technology 2

Course Code	6527
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	Digital Literacy Proficiency and Legal Systems Technology 1
Method of Delivery	F-2-F, Hybrid, Virtual

Legal Systems Technology 2 provides a more complete understanding of the major responsibilities and tasks in paralegal support positions. The objectives of the course are to enhance technology and communication skills; solve legal-oriented problems; manage processes and procedures of legal organizations; and demonstrate effective professional knowledge and personal qualities and employability skills desired for a law-related career.

***Law, Public Safety, Corrections & Security Internship, Work-Based Credit**

Course Code	6590
Recommended Maximum Enrollment	NA
Grade Level	11, 12
Credits	1 (120 hours)
Prerequisite	Completion of two (2) CTE courses/units within a program
Method of Delivery	F-2-F

Law, Public Safety, Corrections and Security Internship is a structured, work-based credit bearing course that is taken as a component of state recognized Career and Technical Education (CTE) Classification of Instructional Programs (CIP)-coded programs for CTE students. Each work-based learning (credit-bearing) course has an assigned CTE course code, and guidelines must be followed to award one Carnegie unit of credit upon successful completion of the course.

***This course will not count as the third unit for a three-unit completer pathway nor a fourth unit in a four-unit completer pathway.**

Manufacturing Cluster

Electronics Technology 1, 2, 3, 4

Course Codes	6133, 6134, 6135, 6136
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours), 2 (240 hours) per course code
Prerequisite	Algebra 1
Method of Delivery	F-2-F, Hybrid, Virtual

Within the NCCER Core-infused Electronics Technology program, students demonstrate knowledge of electrical and electronics theory in hands-on practical applications that incorporate a solid background of physical science, algebraic, and geometric reasoning skills. Upon completion of the Electronics Technology program, students will be career and college ready, with opportunities to gain industry-recognized credentials.

Introduction/Intermediate Manufacturing Technology

Course Code	6045
Recommended Maximum Enrollment	24
Grade Level	9, 10, 11, 12
Credits	1 (120 hours)
Prerequisite	None
Computer Access Required	1:1
Method of Delivery	F-2-F, Hybrid, Virtual

Introduction/Intermediate Manufacturing Technology is an entry-level to mid-level course that provides students an introduction/intermediate path to manufacturing industries and may be used as a prerequisite for any of the manufacturing career majors: Electronics Technology, Machine Technology, Mechatronics Integrated Technologies, Metal Fabrication, and Welding. All standards come from the Manufacturing Skill Standards Council's (MSSC) "worker" standards four critical work functions of production: 1. Safety, 2. Quality Practices and Measurement, 3. Manufacturing Processes and Production, 4. Maintenance Awareness.

Completion of Worker standards 1 and 2 provides the student with the basic knowledge and skills required by an entry-level production technician to perform the work.

Completion of Worker standards 1–4 provides the student with the basic knowledge and skills required by a mid-level production technician to perform the work.

Integrated Production Technologies 1: Advanced Technology for Design and Production

Course Code	6222
Recommended Maximum Enrollment	24
Grade Level	9, 10, 11, 12
Credits	1 (120 hours)
Prerequisite	None
Method of Delivery	F-2-F, Hybrid, Virtual

This course will engage students in the use of modern technologies in the design and improvement of products. Students will use three-dimensional Computer Assisted Design (CAD) software in the creation and analysis process. Students will document designs using standards set by industry for design documentation. Students will implement methods of green production and just-in-time component supply which allow for the lowest cost and highest quality products. Students will design and troubleshoot data acquisition, programmable logic control, process monitoring, automation, and robotic systems. Students will incorporate sensing and vision systems, utilizing cameras and sensors to control automated systems.

Integrated Production Technologies 2: Systems of Advanced Technology

Course Code	6223
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	Advanced Technology for Design and Production
Method of Delivery	F-2-F, Hybrid, Virtual

Systems of Advanced Technology provides opportunities for students to apply the technologies that are found in modern clean, production environments. Students study effective and energy efficient control of pumping, conveyors, piping, pneumatic and hydraulic control systems. Students apply total quality management to production design to assure quality. Students also focus on properties of materials and material testing, creating documentation to support designs, examining properties, and justifying material selections based on properties. Students learn that old products become the new raw materials for new products.

Integrated Production Technologies 3: Mechatronic Systems for Advanced Production

Course Code	6224
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	Systems of Advanced Technology
Method of Delivery	F-2-F, Hybrid, Virtual

Mechatronic Systems for Advanced Production provides opportunities for students to design cost-effective work cells incorporating automation and robotics to improve quality of final products. The advanced production in this course depends on the use and coordination of information, automation, network systems, vision and sensing systems. Students will design and create mechatronic systems and automated tooling to accomplish these advanced tasks. Students produce authentic documentation about their cyber-mechanical systems and the integration with data to control and monitor processes.

Integrated Production Technologies 4: Design for the Production of Advanced Products

Course Code	6225
Recommended Maximum Enrollment	24
Grade Level	11, 12
Credits	1 (120 hours)
Prerequisite	Mechatronic Systems for Advanced Production
Method of Delivery	F-2-F, Hybrid, Virtual

Students will create plant designs to process and automatically assemble materials into new products. Students follow the process of developing and producing a new product from prototype to final product. They will accomplish this by creating a production flow plan that allows for the mass production of the product. Students will analyze and evaluate all aspects of the design and production processes with an emphasis on clean, lean, and green production. Students will utilize data acquisition, quality control processes and Six Sigma methodology to control production.

Machine Tool Technology 1, 2, 3, 4

Course Codes	6230, 6231, 6232, 6233
Recommended Maximum Enrollment	24
Grade Level	9, 10, 11, 12
Credits	1 (120 hours), 2 (240 hours) per course code
Prerequisite	No prerequisite for Level 1; Courses taken sequentially
Method of Delivery	F-2-F, Hybrid, Virtual

Machine Tool Technology offers a sequence of courses that provides coherent and rigorous content aligned with challenging academic standards and relevant technical knowledge and skills needed to prepare for further education and careers in the manufacturing career cluster; provides technical skill proficiency, and includes competency-based applied learning that contributes to the academic knowledge, higher-order reasoning and problem-solving skills, work attitudes, general employability skills, technical skills, and occupation-specific skills, and knowledge of all aspects of the manufacturing career cluster. This program offers a broad foundation of knowledge and skills to prepare students for employment in machining positions. The content includes but is not limited to broad, transferable skills, and stresses the understanding of all aspects of the modern machining industry, including Computer Numerical Control/Computer-Aided Design and Manufacturing (CNC/CAD/CAM), and demonstrates such elements of the industry as planning, management, technical and production skills, underlying principles of technology, labor issues, community issues, and health, safety, and environmental issues. SC students completing Machine Tool Technology secondary program must complete the 10-hour General Industry Occupational Safety and Health Administration (OSHA) course/assessment and receive the card.

Mechatronics 1 – Electrical Components/Industrial Safety

Course Code	6210
Recommended Maximum Enrollment	24
Grade Level	9, 10, 11, 12
Credits	1 (120 hours), 2 (240 hours) per course code
Prerequisite	No prerequisite
Method of Delivery	F-2-F, Hybrid, Virtual

Mechatronics 1 focuses on safety, A/C and D/C circuits, hand and power tools, and precision measurements. Also, students will have the opportunity to acquire industry-recognized certifications such as OSHA within this course.

Mechatronics 2 – Mechanical Components Electric Drives/Hand & Power Tool Op

Course Code	6211
Recommended Maximum Enrollment	24
Grade Level	9, 10, 11, 12
Credits	1 (120 hours), 2 (240 hours) per course code
Prerequisite	Mechatronics 1
Method of Delivery	F-2-F, Hybrid, Virtual

Mechatronics 2 is the second course in the Mechatronics program of study. This course focuses on programmable logic controllers (PLC), electrical industrial controls, fluid power (pneumatics), and motor controls and starters.

Mechatronics 3 – Electro Pneumatics and Hydraulics

Course Code	6212
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours), 2 (240 hours) per course code
Prerequisite	Mechatronics 2
Method of Delivery	F-2-F, Hybrid, Virtual

The focus of Mechatronics 3 includes motor controls and starters, hydraulics, electrical test equipment, and professional development.

Mechatronics 4 – Digital Fundamentals and Programmable Controllers

Course Code	6213
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours), 2 (240 hours) per course code
Prerequisite	Mechatronics 3
Method of Delivery	F-2-F, Hybrid, Virtual

Mechatronics 4 focuses on advanced levels of mechatronic skills, such as PLCs robotics, mechanical drive systems and A/C circuits. Students may have the opportunity to participate in school-to-work opportunities such as apprenticeship or internship. When in the classroom, students work independently or collaboratively on specialized projects integrating career-ready skills in preparation for entering the workforce or post-secondary institution.

Metal Fabrication 1, 2, 3, 4

Course Codes	6260, 6261, 6262, 6263
Recommended Maximum Enrollment	24
Grade Level	9, 10, 11, 12
Credits	1 (120 hours), 2 (240 hours) per course code
Prerequisite	No prerequisite for Level 1; Courses taken sequentially
Method of Delivery	F-2-F, Hybrid, Virtual

Metal Fabrication prepares individuals to apply technical knowledge and skills to plan, manufacture, assemble, test, and repair parts, mechanisms, machines, and structures in which materials are cast, formed, shaped, molded, heat treated, cut, twisted, pressed, fused, stamped, or worked.

Welding Technology 1, 2, 3, 4

Course Codes	6340, 6341, 6342, 6343
Recommended Maximum Enrollment	20
Grade Level	9, 10, 11, 12
Credits	1 (120 hours), 2 (240 hours) per course code
Prerequisite	No prerequisite for Level 1; Courses taken sequentially
Method of Delivery	F-2-F, Hybrid, Virtual

Welding Technology is designed to provide students with the skills and knowledge to effectively perform cutting and welding applications used in the construction industry or in advanced manufacturing. Students will develop proficiency in fundamental safety practices in welding, interpreting drawings, creating computer-aided drawings, identifying and using joint designs, efficiently laying out parts for fabrication. This program will provide the students with skills in basic Shielded metal arc welding (SMAW), gas metal arc welding (GMAW), Flux core arc welding (FCAW), Gas tungsten arc welding (GTAW), as well as quality control methods.

Provided a student takes Introduction to Construction and scores 70 percent on all assessments (00101-8-15), he or she does not have to repeat these modules in Heating, Ventilation and Air Conditioning (HVAC), Building Construction, Cabinetmaking, Carpentry, Electricity, Masonry, Mechatronics, Plumbing, and Welding.

***Manufacturing Internship, Work-Based Credit**

Course Code	6490
Recommended Maximum Enrollment	NA
Grade Level	11, 12
Credits	1 (120 hours)
Prerequisite	Completion of two (2) CTE courses within a program
Method of Delivery	F-2-F

Manufacturing Internship is a structured, work-based credit bearing course that is taken as a component of state recognized Career and Technical Education (CTE) Classification of Instructional Programs (CIP)-coded programs for CTE students. Each work-based learning (credit-bearing) course has an assigned CTE course code, and guidelines must be followed to award one Carnegie unit of credit upon successful completion of the course.

***This course will not count as the third unit for a three-unit completer pathway nor a fourth unit in a four-unit completer pathway.**

Marketing Cluster

Advanced Real Estate Practice

Course Code	5451
Recommended Maximum Enrollment	24
Grade Level	Final semester of 12 th grade and 18 years old
Credits	1 (120 hours)
Prerequisite	Fundamentals of Real Estate Practice
Method of Delivery	F-2-F, Hybrid, Virtual

Advanced Real Estate Practice is the second required course for pre-licensing students in the Real Estate program of study. Designed as a follow-up to the Fundamentals of Real Estate Practices course, it is intended to expand students' understanding of essential concepts of real estate sales and investing and prepare students for state licensure. Students will make an in-depth examination of state, federal and local regulations impacting the real estate industry, and the legal requirements to become a licensed real estate agent. In addition, students will develop entrepreneurial skills needed in the real estate industry by developing a business plan or marketing plan for a real estate practice.

The standards listed reflect the objectives of the SC Real Estate Commission to protect the public. If implemented in full and taught by an instructor approved by the SC Department of Licensing, Labor and Regulation, this course may meet state requirements for a portion of the 90 hours of pre-licensing coursework required to obtain a real estate salesperson's license. Specific course and instructor approval from the SC Department of Labor, Licensing and Regulation and the SC Real Estate Commission are required, for this course to meet those requirements.

Advertising

Course Code	5470
Recommended Maximum Enrollment	24
Grade Level	10,11, 12
Credits	1 (120 hours)
Prerequisite	Marketing
Method of Delivery	F-2-F, Hybrid, Virtual

Advertising is designed to introduce students to the world of advertising: marketing, creative concepting, analyzing different forms of media, planning, and preparing campaign ads, and evaluating success. Students will also analyze and implement communication and career development skills in preparation for career-readiness.

Digital Media Marketing

Course Code	5422
Recommended Maximum Enrollment	24
Grade Level	11, 12
Credits	1 (120 hours)
Prerequisite	Marketing
Method of Delivery	F-2-F, Hybrid, Virtual

Digital Media Marketing is an overview of techniques in digital marketing media, including non-linear editing introducing students to the primary feature set and basic interface of industry standard editing software. Students will plan and execute a storyboard for producing their final product, to include podcasts, DVDs, video blogs, and webcasts. Students learn to demonstrate basic digital video camera technique, digital sound, and lighting. In addition, students will perform basic editing functions while familiarizing themselves with the software's user interface. Topics include basic setup, adjusting and customizing preferences and settings, capturing video and audio, various editing and trimming techniques, audio editing and audio creation, finishing and final output.

Fundamentals of Real Estate Practice

Course Code	5450
Recommended Maximum Enrollment	24
Grade Level	11, 12
Credits	1 (120 hours)
Prerequisite	One one-unit Business or Marketing Course
Method of Delivery	F-2-F, Hybrid, Virtual

Fundamentals of Real Estate Practice is the first required course for pre-licensing students in the Real Estate program of study. This course introduces students to essential concepts of real estate sales and investing. Students will examine state, federal and local regulations impacting the real estate industry, the legal requirements to become a licensed real estate agent, and the application of sales, marketing, and entrepreneurial skills in the real estate industry. Tax implications of investing in real estate will also be addressed.

The standards listed reflect the objectives of the SC Real Estate Commission to protect the public. If implemented in full and taught by an instructor approved by the SC Department of Licensing, Labor and Regulation, this course may meet state requirements for the 90 hours of pre-licensing coursework required to obtain a real estate salesperson's license. Specific course and instructor approval from the SC Department of Labor, Licensing and Regulation and the SC Real Estate Commission is required, however, in order for this course to meet those requirements.

Fashion Marketing

Course Code	5410
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	None
Method of Delivery	F-2-F, Hybrid, Virtual

The Fashion Marketing course explores concepts and practices of the fashion industry to include an overview, the nature of fashion, elements and principles of design, textile basics, and career development. Students will incorporate marketing techniques and skills in the development of a marketing plan. Creativity, innovation, and collaboration are emphasized throughout the course.

Marketing

Course Code	5421
Recommended Maximum Enrollment	24
Grade Level	9, 10, 11, 12
Credits	1 (120 hours)
Prerequisite	None
Method of Delivery	F-2-F, Hybrid, Virtual

Marketing introduces students to the world of marketing. Students will learn about marketing fundamentals, economics, and the Marketing functions of price planning and strategies, promotion, selling, and product distribution. Creativity, problem-solving, research, teamwork, communication, and critical thinking skills are stressed. A coherent, comprehensive marketing plan will be the cumulative project which will demonstrate skills marketing students learned in the course. This is the fundamental course in all the Marketing programs and should be taken before specialized marketing courses.

Marketing Analytics

Course Code	5423
Recommended Maximum Enrollment	24
Grade Level	11, 12
Credits	1 (120 hours)
Prerequisite	Marketing
Method of Delivery	F-2-F, Hybrid, Virtual

Students in Marketing Analytics will study the buying behaviors of consumers in a global marketplace. Through this course, students explore how businesses use marketing research as a management tool to understand and influence consumer decision making. The course will emphasize decision-making, based on results obtained through research and analysis, which make businesses profitable. Topics covered will consist of trends, sampling, surveys, demographics, and data analysis.

Marketing Management

Course Code	5431
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	Marketing
Method of Delivery	F-2-F, Hybrid, Virtual

Marketing Management is the study of marketing from the perspective of the decision-maker. Marketing managers coordinate, plan, and implement the marketing functions of an organization. This course offers a deeper understanding of marketing functions, including product pricing, distribution, promotion, segmentation, research, and sales. Marketing Management examines the additional roles of the marketing manager in the areas of general and operations management, human resources, finance, and leadership.

Merchandising

Course Code	5430
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	Marketing
Method of Delivery	F-2-F, Hybrid, Virtual

The Merchandising course prepares individuals to understand the process of merchandising as it relates to the resale of products and product lines for stores, chains, and other retail enterprises. Concepts included in the course include product planning and development, buying, pricing, branding, inventory management, visual merchandising and display, and the preparation of a marketing plan.

Professional Sales

Course Code	5471
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	Marketing
Method of Delivery	F-2-F, Hybrid, Virtual

Students in Professional Sales study the concepts needed to respond to customer wants and needs through planned personalized communication that influences purchase decisions, maintains customer relationships, ensures satisfaction, and enhances future business opportunities. Subject matter will include selling strategies, psychological and social factors influencing buying and selling, career opportunities, and technological integration in selling.

Social Media Marketing

Course Code	5034
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	Teacher approval and successful completion of either a business or marketing course
Method of Delivery	F-2-F, Hybrid, Virtual

Social Media Marketing introduces students to the current field of social media and prepares them to explore and create successful social media strategies for businesses. This course gives students the knowledge, tools, and methods to use different social media tools in order to educate and connect with customers, promote and sell products and services, and develop new business.

Sports and Entertainment Management

Course Code	5426
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	Marketing
Method of Delivery	F-2-F, Hybrid, Virtual

Sports and Entertainment Management is the study of marketing from the decision-makers' view in the sports and entertainment industry. The Sports and Entertainment manager plans and controls various marketing aspects of a company or a team in terms of the marketing concept. This course continues the analysis of the marketing functions including product-pricing, distribution, promotion, segmentation, and selling products. The addition of business and accounting fundamentals such as team management and leadership skills, strategic and operations management, human resources, and developing budgets, expands upon the managerial aspect. Finally, this course includes an in-depth analysis of the sports and entertainment industry to include managing amateur, adaptive, and recreational sports, college and professional sports, venue and event management. Upon completion of Marketing and Sports and Entertainment Management courses, students are concentrating on becoming effective marketing managers.

Sports and Entertainment Marketing

Course Code	5425
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	None
Method of Delivery	F-2-F, Hybrid, Virtual

The Sports and Entertainment Marketing course is for students who are interested in marketing careers in the various areas found in the sports and entertainment industry. Marketing theory and practice are emphasized and incorporated into present-day scenarios. Major topics include the use of technology, promotion, customer relations, selling, and marketing plans.

***Marketing Internship, Work-Based Credit**

Course Code	5091
Recommended Maximum Enrollment	NA
Grade Level	11, 12
Credits	1 (120 hours)
Prerequisite	Completion of two (2) CTE courses/units within a program
Method of Delivery	F-2-F, Hybrid, Virtual

Marketing Internship is a structured, work-based credit bearing course that is taken as a component of state recognized Career and Technical Education (CTE) Classification of Instructional Programs (CIP)-coded programs for CTE students. Each work-based learning (credit-bearing) course has an assigned CTE course code, and guidelines must be followed to award one Carnegie unit of credit upon successful completion of the course.

***This course will not count as the third unit for a three-unit completer pathway nor a fourth unit in a four-unit completer pathway.**

Middle School – Science, Technology, Engineering, and Mathematics Cluster

Industrial Technology Education

Course Code	1840 (6), 2840 (7, 8)
Recommended Maximum Enrollment	24
Credits	NA
Prerequisite	NA
Method of Delivery	F-2-F, Hybrid, Virtual

Industrial Technology Education provides basic technological knowledge and skills to become technology literate citizens. Standards are organized into five categories: The Nature of Technology, Technology and Society, Design, Abilities for a Technological World, and the Designed World and are presented in grade bands.

Project Lead the Way Gateway to Technology Overview

Project Lead the Way (PLTW) Gateway to Technology (GTT) courses feature a project-based curriculum designed to challenge and engage the natural curiosity and imagination of middle school students. The ten courses listed below envision, design and test ideas with the same advanced modeling software used by companies like Lockheed Martin, Intel, and Sprint. The knowledge that students gain and the skills they build from the GTT courses create a strong foundation for further Science, Technology, Engineering, and Mathematics (STEM) learning in high school and beyond.

PLTW App Creators

Course Code	1782 (6), 2782 (7, 8)
Recommended Maximum Enrollment	24
Credits	NA
Prerequisite	NA
Method of Delivery	F-2-F, Hybrid, Virtual

This unit will expose students to computer science as a means of computationally analyzing and developing solutions to authentic problems through mobile app development and will convey the positive impact of the application of computer science to other disciplines and to society.

PLTW Automation and Robotics

Course Code/Grade Level	1781 (6), 2781 (7, 8)
Recommended Maximum Enrollment	24
Credits	NA
Prerequisite	NA
Method of Delivery	F-2-F, Hybrid, Virtual

Students learn about the history and impact of automation and robotics as they explore mechanical systems, energy transfer, machine automation, and computer control systems. Using the VEX Robotics® platform, students apply what they know to design and program traffic lights, robotic arms, and more.

PLTW Computer Science for Innovators and Makers

Course Code/Grade Level	1785 (6), 2785 (7, 8)
Recommended Maximum Enrollment	24
Credits	NA
Prerequisite	NA
Method of Delivery	F-2-F, Hybrid, Virtual

Throughout the unit, students will learn about programming for the physical world by blending hardware design and software development, allowing students to discover computer science concepts and skills by creating personally relevant, tangible, and shareable projects.

PLTW Design and Modeling

Course Code/Grade Level	1780 (6), 2780 (7, 8)
Recommended Maximum Enrollment	24
Credits	NA
Prerequisite	NA
Method of Delivery	F-2-F, Hybrid, Virtual

Students discover the design process and develop an understanding of the influence of creativity and innovation in their lives. They are then challenged and empowered to use and apply what they've learned throughout the unit to design a therapeutic toy for a child who has cerebral palsy.

PLTW Energy and the Environment

Course Code/Grade Level	1783 (6), 2783 (7, 8)
Recommended Maximum Enrollment	24
Credits	NA
Prerequisite	NA
Method of Delivery	F-2-F, Hybrid, Virtual

Students are challenged to think big and toward the future as they explore sustainable solutions to our energy needs and investigate the impact of energy on our lives and the world. They use what they've learned to design and model alternative energy sources, as well as evaluate options for reducing energy consumption.

PLTW Flight and Space

Course Code/Grade Level	1784 (6), 2784 (7, 8)
Recommended Maximum Enrollment	24
Credits	NA
Prerequisite	NA
Method of Delivery	F-2-F, Hybrid, Virtual

The exciting world of aerospace comes alive through Flight and Space. Students explore the science behind aeronautics and use their knowledge to design, build, and test an airfoil.

PLTW Green Architecture

Course Code/Grade Level	1788 (6), 2788 (7, 8)
Recommended Maximum Enrollment	24
Credits	NA
Prerequisite	NA
Method of Delivery	F-2-F, Hybrid, Virtual

In this unit, students learn how to apply green concepts to the fields of architecture and construction. They explore dimensioning, measuring, and architectural sustainability and apply what they have learned to design affordable housing units using Autodesk's® 3D architectural design software.

PLTW Magic of Electrons

Course Code/Grade Level	1787 (6), 2787 (7, 8)
Recommended Maximum Enrollment	24
Credits	NA
Prerequisite	NA
Method of Delivery	F-2-F, Hybrid, Virtual

In this unit, students examine the behavior and parts of atoms as well as the impact of electricity on the world around them. They learn skills in basic circuitry design and use what they know to propose designs such as a burglar alarm for an art museum.

PLTW Medical Detectives

Course Code/Grade Level	1789 (6), 2789 (7, 8)
Recommended Maximum Enrollment	24
Credits	NA
Prerequisite	NA
Method of Delivery	F-2-F, Hybrid, Virtual

Students play the role of real-life medical detectives as they collect and analyze medical data to diagnose disease. They solve medical mysteries through hands-on projects and labs, measure and interpret vital signs, examine nervous system structure and function, investigate disease outbreaks, and explore how a breakdown within the human body can lead to dysfunction.

PLTW Science of Technology

Course Code/Grade Level	1786 (6), 2786 (7, 8)
Recommended Maximum Enrollment	24
Credits	NA
Prerequisite	NA
Method of Delivery	F-2-F, Hybrid, Virtual

Science impacts the technology of yesterday, today, and the future. In this unit, students apply the concepts of physics, chemistry, and nanotechnology to activities and projects, including making ice cream, cleaning up an oil spill, and discovering the properties of nanomaterials.

SREB Middle grades STEM Overview

SREB’s project-based **middle grades STEM courses** awaken students’ natural curiosity about the world and deepen their understanding of scientific inquiry and the engineering design process — all while introducing them to exciting, tech-driven careers.

SREB Fundamentals of Science and Technology

Course Code	2845
Recommended Maximum Enrollment	24
Grade Level	7
Credits	NA
Prerequisite	NA
Method of Delivery	F-2-F, Hybrid, Virtual

This course introduces students to the core fundamental concepts of science and technology through authentic projects. Students experience the interaction of science, technology, engineering, math, and literacy through a problem-based learning environment. Students will develop a deeper understanding of scientific inquiry and the engineering design process when solving real-world problems.

SREB Applications of Science and Technology

Course Code	2846
Recommended Maximum Enrollment	24
Grade Level	8
Credits	NA
Prerequisite	NA
Method of Delivery	F-2-F, Hybrid, Virtual

This course continues the application of science and technology through authentic projects. Students experience the interaction of science, technology, engineering, math, and literacy through a problem-based learning environment. Students will develop a deeper understanding of scientific inquiry and the engineering design process when solving real-world problems.

High School – Science, Technology, Engineering & Mathematics Cluster

Food Science 1

Course Code	5757
Recommended Maximum Enrollment	20
Grade Level	11, 12
Credits	1 (120 hours)
Prerequisite	None
Method of Delivery	F-2-F, Hybrid

Discover the science behind your favorite foods! How is root beer made? Are all additives bad? Will you get sick if you eat mold? These questions and more will be answered. Learn biology, chemistry, and physics as you investigate principles of food processing and food science. Topics to be covered include food safety and regulations, processing and preservation, product development, and nutritional content of various foods. The course places emphasis on hands-on lab activities and discussion. Integration of the Family and Consumer Sciences co-curricular student organization, Family, Career and Community Leaders of America (FCCLA), greatly enhances this course.

Food Science 2

Course Code	5758
Recommended Maximum Enrollment	20
Grade Level	11, 12
Credits	1 (120 hours), 2 (240 hours)
Prerequisite	Food Science 1
Method of Delivery	F-2-F, Hybrid

Discover separate ways to preserve food. Create an original food product, technique, or process to be used in the food industry. Learn biology, chemistry, and physics as you continue to investigate principles of food processing and food science. Topics to be covered include food safety and regulations, processing and preservation, product development, and nutritional content of various foods. The course places emphasis on hands-on lab activities and discussion. Integration of the Family and Consumer Sciences co-curricular student organization, Family, Career and Community Leaders of America (FCCLA), greatly enhances this course.

Aerospace Engineering 1: Fundamentals of Aerospace Technology

Course Code	6386
Recommended Maximum Enrollment	24
Grade Level	9, 10, 11, 12
Credits	1 (120 hours)
Prerequisite	None
Method of Delivery	F-2-F, Hybrid, Virtual

This project-based learning course engages students who are curious about aviation and aerospace careers. This course will introduce students to an engineering design process, tools to collect and analyze data, the science of aviation, materials and structures, and safety. Students will participate in real-world experiences such as designing, building and testing a pilot seat, kite, straw rocket and launcher, motor-powered rocket, and a model glider.

Aerospace Engineering 2: Advanced Aerospace Technology

Course Code	6387
Recommended Maximum Enrollment	24
Grade Level	9, 10, 11, 12
Credits	1 (120 hours)
Prerequisite	Fundamentals of Aerospace Technology
Method of Delivery	F-2-F, Hybrid, Virtual

This course builds on the foundation of Course 1 and engages students in applying the design process, using tools to collect and analyze data, exploring a deeper level of the science of aviation and discovering how quality control systems work in the aviation field. Students will work collaboratively in teams to design, build and test a wing; plot a course for a plane to take off and land; design, build and test a wing attachment system; test materials under stress; and design, build and test an electric-powered plane. Students will demonstrate their newly acquired knowledge and skills by presenting their innovative ideas, techniques and solutions to business and industry partners.

Aerospace Engineering 3: Aeronautics Engineering Applications

Course Code	6388
Recommended Maximum Enrollment	24
Grade Level	9, 10, 11,12
Credits	1 (120)
Prerequisite	Advanced Aerospace Technology
Method of Delivery	F-2-F, Hybrid, Virtual

This project-based learning course is for students who have successfully completed Courses 1 and 2. Students will learn about systems such as flight control, remote-controlled vehicles, and the virtual world. Students will learn to fly using flight simulators. They will work collaboratively to propose a shift from a Very High Frequency Omnidirectional Range (VOR) navigation system to a Global Positioning System (GPS) and determine the cost savings. In addition, students will develop rotor blades for helicopters and design and program an unmanned flying vehicle.

Aerospace Engineering 4: Astronautics Engineering Applications

Course Code	6389
Recommended Maximum Enrollment	24
Grade Level	11,12
Credits	1 (120)
Prerequisite	Course 3: Aeronautics Engineering Applications
Method of Delivery	F-2-F, Hybrid, Virtual

Students in this capstone course will focus on outer space and underwater applications. During the six projects, they will work collaboratively to design, build, and test a laser communication system; develop a plan for space survivability in hostile environments; and utilize software to create a three-dimensional model of a satellite orbit and a team remote vehicle for underwater exploration. Depending on articulation agreements or state policy, students who successfully complete the course may be able to earn dual credit.

Clean Energy 1: Clean Energy Systems (Course 1)

Course Code	6380
Recommended Maximum Enrollment	24
Grade Level	9, 10, 11, 12
Credits	1 (120 hours)
Prerequisite	None
Method of Delivery	F-2-F, Hybrid, Virtual

Clean Energy Systems 1 exposes students to three sources of renewable energy: wind, solar and biofuels. Working with solar, thermal, chemical, and mechanical sources of clean energy teaches students how to apply physics, geography, chemistry, biology, geometry, algebra, and engineering fundamentals. Students learn the most efficient and appropriate use of energy production as they explore the relevant relationships among work, power, and energy. Students will engage in a wide variety of hands-on projects and lab activities that both test their knowledge and illustrate the interrelationships between the various forms of clean energy.

Clean Energy 2: Clean Energy Applications (Course 2)

Course Code	6381
Recommended Maximum Enrollment	24
Grade Level	9, 10, 11, 12
Credits	1 (120 hours)
Prerequisite	None
Method of Delivery	F-2-F, Hybrid, Virtual

Clean Energy Systems 2 builds on the foundation of Course 1 and introduces nuclear power, steam generation, fuel cells, geothermal power, waterpower, AC/DC power generation, heat transfer and the laws of thermodynamics. In addition, students now use chemical and thermal energy principles to create, store and use energy efficiently to power a variety of mechanical and electrical devices. Students will engage in a variety of hands-on design projects to demonstrate principles using advanced technology hardware and software.

Clean Energy 3: Clean Energy Strategies (Course 3)

Course Code	6382
Recommended Maximum Enrollment	24
Grade Level	9, 10, 11, 12
Credits	1 (120 hours)
Prerequisite	None
Method of Delivery	F-2-F, Hybrid, Virtual

Clean Energy Systems 3 students utilize applicable skills from the foundational courses to tackle challenges associated with the implementation of clean energy technology. The hands-on projects encountered during this course will require students to address specific issues related to providing portable power in any situation, developing new energy storage systems, increasing the efficiency of the modern home, and designing more energy efficient buildings and homes.

Clean Energy 4: Clean Energy Innovations (Course 4)

Course Code	6383
Recommended Maximum Enrollment	24
Grade Level	9, 10, 11, 12
Credits	1 (120 hours)
Prerequisite	None
Method of Delivery	F-2-F, Hybrid, Virtual

Clean Energy Innovations is the fourth and final course in the Clean Energy Technology Pathway Program. The course will provide students the opportunity to work independently with open-ended, problem-solving scenarios to create an original solution in clean energy entrepreneurship or clean energy research and development. Students will collaborate with a mentor to conduct applied research around a defined research problem, develop solutions, collect, and analyze relevant data, evaluate their solutions, and present their findings in public venues and competitions.

Core Engineering 1

Course Code	6370
Recommended Maximum Enrollment	24
Grade Level	9, 10
Credits	1 (120 hours)
Prerequisite	None
Method of Delivery	F-2-F, Hybrid, Virtual

Core Engineering 1 (Introduction to Engineering) is the introductory course in the core engineering program. This course teaches problem-solving skills using a design development process and exposes students to the career field of engineering, as well as engineering design software. Models of product solutions are created, analyzed, and communicated using 3D CAD software.

Core Engineering 2

Course Code	6371
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	Core Engineering 1
Method of Delivery	F-2-F, Hybrid, Virtual

Core Engineering 2 is the second course where students learn 3D design as an interactive process. Students learn best when they can explore the practical applications of the concepts that they learn. This STEM course has many activities and exercises that enable students to put design concepts into practice. Students create their ideas such as artificial heart components, extreme sports equipment, hip replacement parts, robotic arm components, musical instruments, and their parts as well as many others. Ideas become reality in this course.

Core Engineering 3

Course Code	6375
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	Core Engineering 2
Method of Delivery	F-2-F, Hybrid, Virtual

Core Engineering 3 is the third course in the core engineering sequence and helps students understand a specialized field of engineering/engineering technology. The course uses project-based activities and technological systems to help students learn about a specific engineering discipline. Students will use Science, Technology, Engineering, and Math (STEM) and Project Lead the Way (PLTW) engineering and problem-solving processes. Existing state-approved courses that meet these standards include specialization courses in PLTW or STEM Academy.

Core Engineering 4

Course Code	6376
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	Core Engineering 3
Method of Delivery	F-2-F, Hybrid, Virtual

Core Engineering 4 is the fourth course in the core engineering sequence and helps students understand an additional specialized field of engineering/engineering technology. The course uses project-based activities and technological systems to help students gain a deeper understanding of engineering processes. Students will use Science, Technology, Engineering, and Math (STEM) in an engineering and problem-solving process. Existing state-approved courses that meet these standards include specialization or capstone courses (PLTW or STEM Academy).

Industrial Technology Education (Exploratory) 1, 2

Course Code	6040, 6041
Recommended Maximum Enrollment	24
Grade Level	9, 10, 11, 12
Credits	1 (120 hours) per course code
Prerequisite	None
Method of Delivery	F-2-F, Hybrid, Virtual

Industrial Technology Education provides the essential core of technological knowledge and skills to become technology literate citizens. Standards are organized into five categories: The Nature of Technology, Technology and Society, Design, Abilities for a Technological World, and the Designed World and are presented in grade bands.

Innovations in Science and Technology 1: The Nature of Science and Technology

Course Code	6140
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	None
Method of Delivery	F-2-F, Hybrid, Virtual

This is a contextual-based course that introduces students to the core fundamental concepts of science and technology through authentic projects. Through these projects, students will develop an understanding of the relationship between the physical, biological, and social world. Students will gain an understanding of the differences between science and technology and learn that technology is a process for applying science. Students will develop a deeper understanding of scientific inquiry and the engineering design process when solving real-world problems. Students will experience the interaction of science, technology, engineering, math, and literacy through a problem-based learning environment. Finally, the process will require students to use mathematics to analyze costs, develop budgets and make precise measurements to successfully implement project goals.

Innovations in Science and Technology 2: Core Applications of Science and Technology

Course Code	6141
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	Innovations in Science and Technology 1
Method of Delivery	F-2-F, Hybrid, Virtual

This course uses the concepts learned from Course 1 to further develop students' problem-solving strategies and skills needed by the 21st-century workforce. Students will continue to explore emerging technologies and techniques in the context of addressing authentic projects. Key concepts introduced in this course include sustainability and environmental trends, systems thinking, and trend analysis and prediction. Through engagement, students will experience the necessary connection between literacy, mathematics, and science in a variety of hands-on, real-world projects requiring them to apply academic and technical concepts and skills and technology to complete.

Innovations in Science and Technology 3: Impacts of Science and Technology

Course Code	6142
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	Innovations in Science and Technology 2
Method of Delivery	F-2-F, Hybrid, Virtual

This course will examine the past, present and future impact of science and technology on culture, society and the environment. Students will explore how their predecessors worked to solve some problems that still exist today and examine the potential of using modern technology to solve those problems. From these explorations, students will engage in a variety of hands-on design projects that will address tradeoffs, optimization, interconnectivity, and the nature of complex systems.

Innovations in Science and Technology 4: Creativity and Innovations

Course Code	6143
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	Innovations in Science and Technology 3
Method of Delivery	F-2-F, Hybrid, Virtual

This course will allow students to brainstorm, use invention, innovation, creativity, predictive analysis and use technology to solve real-world problems. Dimensions covered will include research and development, troubleshooting, experimentation, design failures, patents and trademarks, and design under constraints.

PLTW – Aerospace Engineering (AE)

Course Code	6056
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	Introduction to Engineering (IED), Principles of Engineering (POE), or Teacher Recommendation
Method of Delivery	F-2-F, Hybrid, Virtual

This PLTW course propels students' learning in the fundamentals of atmospheric and space flight. As they explore the physics of flight, students bring the concepts to life by designing an airfoil, propulsion system, and rockets. They learn basic orbital mechanics using industry-standard software and explore robot systems through projects such as remotely operated vehicles.

PLTW – Civil Engineering and Architecture (CEA)

Course Code	6058
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	Introduction to Engineering (IED), Principles of Engineering (POE), or Teacher Recommendation
Method of Delivery	F-2-F, Hybrid, Virtual

Students learn important aspects of building and site design and development, applying math, science, and standard engineering practices to design both residential and commercial projects. They document designs using 3D architecture design software. Some students have seen these designs come to life through partnerships with local housing organizations.

PLTW – Computer Integrated Manufacturing (CIM)

Course Code	6053
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	Introduction to Engineering (IED), Principles of Engineering (POE), or Teacher Recommendation
Method of Delivery	F-2-F, Hybrid, Virtual

Manufactured items are part of everyday life, yet most students have not been introduced to the high-tech, innovative nature of modern manufacturing. This course illuminates the opportunities related to understanding manufacturing while teaching students about manufacturing processes, product design, robotics, and automation. Students can earn a virtual manufacturing badge recognized by the National Manufacturing Badge system.

PLTW – Digital Electronics (DE)

Course Code	6052
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	Introduction to Engineering (IED), Principles of Engineering (POE) or Teacher Recommendation
Method of Delivery	F-2-F, Hybrid, Virtual

From smart phones to appliances, digital circuits are all around us. This course provides a foundation for students who are interested in electrical engineering, electronics, or circuit design. Students study topics such as combinational and sequential logic and are exposed to circuit design tools used in industry including logic gates, integrated circuits, and programmable logic devices.

PLTW – Capstone

Course Code	6054
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	Introduction to Engineering (IED), Principles of Engineering (POE), or Teacher Recommendation
Method of Delivery	F-2-F, Hybrid, Virtual

The knowledge and skills students acquire on the “Pathway to Engineering” come together in EDD as they identify an issue and then research, design, and test a solution, ultimately presenting their solution to a panel of engineers. Students apply the professional skills they have developed to document a design process to standards. Completing EDD prepares students to be ready to take on any post-secondary program or career.

PLTW – Engineering Essentials (EE)

Course Code	6144
Recommended Maximum Enrollment	24
Grade Level	9, 10
Credits	1 (120 hours)
Prerequisite	None
Method of Delivery	F-2-F, Hybrid, Virtual

Engineering Essentials is a brand-new course designed as a first-exposure experience to inspire students of all backgrounds to explore the breadth of engineering-related career opportunities. Throughout the course, students explore global engineering challenges and sustainability goals, the impact of engineering, and the variety of career paths available to them. Engineering Essentials is geared toward a first-year engineering high school student.

PLTW – Environmental Sustainability (ES)

Course Code	6374
Recommended Maximum Enrollment	24
Grade Level	9, 10, 11, 12
Credits	1 (120 hours)
Prerequisite	None
Method of Delivery	F-2-F, Hybrid, Virtual

ES provides opportunities for students to investigate and design solutions in response to real-world challenges related to clean and abundant drinking water, food supply, and renewable energy. Applying their knowledge through hands-on activities and simulations, students' research, and design potential solutions to these true-to-life challenges.

PLTW – Introduction to Engineering Design (IED)

Course Code	6051
Recommended Maximum Enrollment	24
Grade Level	9, 10
Credits	1 (120 hours)
Prerequisite	None
Method of Delivery	F-2-F, Hybrid, Virtual

Students dig deep into the engineering design process, applying math, science, and engineering standards to hands-on projects. They work both individually and in teams to design solutions to a variety of problems using 3D modeling software and document their work in an engineering notebook.

PLTW – Principles of Engineering (POE)

Course Code	6050
Recommended Maximum Enrollment	24
Grade Level	9, 10
Credits	1 (120 hours)
Prerequisite	Introduction to Engineering Design
Method of Delivery	F-2-F, Hybrid, Virtual

Through problems that engage and challenge students, they explore a broad range of engineering topics including mechanisms, the strength of structures and materials, and automation. Students develop skills in problem solving, research, and design while learning strategies for design process documentation, collaboration, and presentation.

Siemens 1: Siemens Engineering Design

Course Code	57R0
Recommended Maximum Enrollment	24
Grade Level	9, 10, 11
Credits	1 (120 hours)
Prerequisite	Algebra (can be taken concurrently)
Method of Delivery	F-2-F, Hybrid, Virtual

Siemens Engineering Design, the first course in the Siemens Engineering program, challenges students to work in teams to solve complex design problems. Students research, design, develop, and communicate design solutions. Teams use engineering software to prepare and evaluate designs and make extensive use of 3D printing to prepare models for presentation to authentic audiences. The goal of the course is the application of the tools to address unique problems allowing the students to rapidly create and analyze proposed solutions. Siemens' software and hardware are tools frequently used by industry and understanding how these tools are used in problem solving is critical.

Siemens 2: Siemens Manufacturing and Automation

Course Code	57R1
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	Siemens Engineering Design
Method of Delivery	F-2-F, Hybrid, Virtual

Siemens Manufacturing and Automation, the second course in the Siemens Engineering program, is designed to provide students with experience in the creation of a design, preparing the design for machining and designing the automation necessary to control the process. This manufacturing course will challenge students to collaboratively solve design problems by working in teams, requiring research and reporting findings, and will prepare students to obtain Siemens PLC and Solid Edge certifications. The Siemens manufacturing course will utilize the various Siemens' software as tools for problem solving and preparing solutions. The goal of the course is the application of the tools to address unique problems allowing the students to rapidly create and analyze proposed solutions.

Siemens 3: Siemens Mechatronics and the Internet of Things (IoT)

Course Code	57R2
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	Siemens Manufacturing and Design
Method of Delivery	F-2-F, Hybrid, Virtual

Siemens Mechatronics and the Internet of Things (IoT), the third course in the Siemens Engineering program, requires students to collaborate in teams to research problems and develop solutions. The focus will be on the engineering of mechatronic systems, and includes a combination of robotics, electronics, computer programming, networking, systems, control, and product engineering as well as communications between systems securely over the internet. Students explore PWM and PID control systems utilizing machine intelligence and machine to machine communications.

Siemens 4: Siemens Engineering Research and Development

Course Code	57R3
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	Siemens Mechatronics and the Internet of Things (IoT)
Method of Delivery	F-2-F, Hybrid, Virtual

Engineering Research and Development course is the capstone experience in the Siemens Engineering program. Students are challenged to form teams to identify, research, and create a unique solution to an existing problem. Teams will gauge market interest in their proposed solution and will be responsible for developing and documenting the research as it applies to the creation of a prototype solution to their identified problem. Student teams design a business model for creation of the product and apply lean design concepts to the development of a plan of manufacture. Teams explore concepts of lean manufacturing and statistical process control (SPC) and how Six Sigma is used to keep waste to a minimum and maximize profits. At the end of the course students present the results of their research, prototype development, business plan and how they were able to optimize the process of manufacturing.

***Pre-Engineering/Engineering and Industrial Technology Education Internship, Work-Based Credit**

Course Code	6090
Recommended Maximum Enrollment	NA
Grade Level	11, 12
Credits	1 (120 hours)
Prerequisite	Completion of two (2) CTE courses/units within a program
Method of Delivery	F-2-F, Hybrid

Pre-Engineering/Engineering and Industrial Technology Education Internship is a structured, work-based credit bearing course that is taken as a component of state recognized Career and Technical Education (CTE) Classification of Instructional Programs (CIP)-coded programs for CTE students. Each work-based learning (credit-bearing) course has an assigned CTE course code, and guidelines must be followed to award one Carnegie unit of credit upon successful completion of the course.

***This course will not count as the third unit for a three-unit completer pathway nor a fourth unit in a four-unit completer pathway.**

***Science, Technology, Engineering & Mathematics Internship, Work-Based Credit**

Course Code	6890
Recommended Maximum Enrollment	NA
Grade Level	11, 12
Credits	1 (120 hours)
Prerequisite	Completion of two (2) CTE courses/units within a program
Method of Delivery	F-2-F, Hybrid

Science, Technology, Engineering, and Mathematics Internship is a structured, work-based credit bearing course that is taken as a component of state recognized Career and Technical Education (CTE) Classification of Instructional Programs (CIP)-coded programs for CTE students. Each work-based learning (credit-bearing) course has an assigned CTE course code, and guidelines must be followed to award one Carnegie unit of credit upon successful completion of the course.

***This course will not count as the third unit for a three-unit completer pathway nor a fourth unit in a four-unit completer pathway.**

Transportation, Distribution & Logistics Cluster

Automotive Collision Repair Technology 1, 2, 3, 4

Course Codes	6020, 6021, 6022, 6023
Recommended Maximum Enrollment	20
Grade Level	10, 11, 12
Credits	1 (120 hours), 2 (240 hours) per course code
Prerequisite	No prerequisite for Level 1; Courses taken sequentially
Method of Delivery	F-2-F, Hybrid

The Automotive Collision Repair Technology program is designed to prepare students to repair automobiles and light commercial vehicles under the supervision of an experienced automotive collision repair technician. Automotive Collision Repair Technology students receive instruction in frame alignment, surface finishing, and shop management. Upon successful completion of the program standards, the student will have the opportunity to acquire I-CAR Pro Level 1, be prepared for postsecondary education, and entry-level automotive collision repair-related careers. Program standards are based on ASE, Vehicle Manufacturers, and I-CAR industry standards.

Automotive Technology 1, 2, 3, 4

Course Codes	6030, 6031, 6032, 6033
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours), 2 (240 hours)
Prerequisite	No prerequisite for Level 1; Courses taken sequentially
Method of Delivery	F-2-F, Hybrid

This program offers a sequence of courses that provides coherent and rigorous content aligned with challenging academic standards and relevant technical knowledge and skills needed to prepare for further education and careers in the Transportation, Distribution, and Logistics career cluster. The Automotive Technology program provides technical skill proficiency and includes competency-based applied learning that contributes to the academic knowledge, higher-order reasoning and problem-solving skills, work attitudes, general employability skills, technical skills and occupation-specific skills, and knowledge of all aspects of the Transportation, Distribution, and Logistics career cluster.

Commercial Driving License 1

Course Codes	6318
Recommended Maximum Enrollment	16
Grade Level	10, 11, 12
Credits	1 (120 hours), 2 (240 hours)
Prerequisite	No prerequisite
Method of Delivery	F-2-F, Hybrid

Commercial Driver's License Level 1 will explore the basics of transportation. Students will learn about what it takes to operate vehicles ranging from compact up to commercial motor vehicles. Each student will have the opportunity to earn their Beginner's Permit for Class "D" vehicles. They will be introduced to the basic requirements for the commercial driver's license.

Commercial Driving License 2

Course Codes	6319
Recommended Maximum Enrollment	16
Grade Level	10, 11, 12
Credits	1 (120 hours), 2 (240 hours)
Prerequisite	CDL 1 with a "C" better, instructor recommendation, and a valid SC Driver's License Class D
Method of Delivery	F-2-F, Hybrid

Commercial Driver's License Level 2 will continue learning the fundamentals of vehicle operations. Students will be introduced to the Occupational Safety and Health Administration (OSHA) standards as they pertain to a commercial motor vehicle (CMV). Students also will learn the history of trucking, preparing for CDL requirements for certification, industry compliance, safety and accountability, transportation technology, and regulatory agencies that govern the transportation industry and licensures, as well as perform vehicle inspections.

Commercial Driving License 3

Course Codes	6320
Recommended Maximum Enrollment	16
Grade Level	10, 11, 12
Credits	1 (120 hours), 2 (240 hours)
Prerequisite	CDL 2 with a "C" or better, instructor recommendation, and a valid SC Driver's License Class D
Method of Delivery	F-2-F, Hybrid

Commercial Driver's License Level 3 CDL students are expected to carry out a high demand on knowing and understanding the major systems and components of a commercial motor vehicle. Each student is expected to work towards obtaining their CLP (Commercial Learner's Permit), performing thorough vehicle inspections, and begin to perform behind the wheel maneuvers. This level is heavy hands-on with limited class time.

Commercial Driving License 4

Course Codes	6321
Recommended Maximum Enrollment	16
Grade Level	10, 11, 12
Credits	1 (120 hours), 2 (240 hours)
Prerequisite	CDL 3 with a “C” or better, Instructor recommendation, valid SC Driver’s License Class D, and a physical examination
Method of Delivery	F-2-F, Hybrid

Commercial Driver’s License Level 4 is designed to help the student become a professional driver. This program provides practical experience by including an effective balance of backing and highway/street lessons. The student will practice basic backing maneuvers to develop knowledge, skills, and attitudes that will make the student safe, efficient, and ready for employment. Students will practice coupling and uncoupling, straight line backing, right offset backing, and 90-degree alley dock backing on the range. Urban driving, shifting, highway travel, traffic patterns, and safe driving procedures are taught on the driving simulator, where available. Pre-trip and post-trip vehicle inspections will be performed on the yard. Students will have the opportunity to test for the Commercial Learner’s Permit (CLP).

Diesel Engine Technology 1, 2, 3, 4

Course Codes	6310, 6311, 6312, 6313
Recommended Maximum Enrollment	20
Grade Level	10, 11, 12
Credits	1 (120 hours), 2 (240 hours) per course code
Prerequisite	No prerequisite for Level 1; Courses taken sequentially
Method of Delivery	F-2-F, Hybrid

The Diesel Engine Technology program is designed to prepare students to perform entry-level maintenance and repair tasks under the supervision of an experienced technician. Upon successful completion of the program, students will have the opportunity to obtain the ASE Inspection, Maintenance and Minor Repair and Diesel Engine entry-level certifications, as well as other industry certifications.

540 hours minimum for Inspection Maintenance & Minor Repair (IMMR) accredited program; 740 hours for Medium/Heavy Truck Service Technology (TST) program; 1040 hours for Medium/Heavy Master Truck Service Technology (MTST) program.

Drone Technologies 1: Theory and Aeronautical Basics

Course Codes	57T1
Recommended Maximum Enrollment	20
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	NA
Method of Delivery	F-2-F, Hybrid, Virtual

Drone Technologies 1: Theory and Aeronautical Basics is designed to provide students with basic information about the drone industry to gain an understanding of careers and skills in this field. FAA 14 CFR part 107 (The Small UAS Rule), officially known as "Part 107 Remote Pilot Certificate" is covered. Students will explore the basic skills and knowledge needed to be a recreational drone pilot. They will learn about drone theory and aeronautical regulations operating rules, pathways to certification, airspace operating rules, aviation weather, unmanned aircraft systems, flight procedures, radio communications, airport operations, and maintenance inspections procedures.

Drone Technologies 2: Theory and Design

Course Codes	57T2
Recommended Maximum Enrollment	20
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	Drone Technology 1
Method of Delivery	F-2-F, Hybrid, Virtual

Drone Technologies 2: Theory and Design includes design techniques, documentation, safety, introduction to drones, airframes, electric motors, propellers, electronics speed controllers, batteries, charges and connectors, transmitters, and receivers. Cameras, gimbals, ground control stations, regulations, and the FAA are also included.

Drone Technologies 3: Learn to Fly

Course Codes	57T3
Recommended Maximum Enrollment	20
Grade Level	10, 11, 12
Credits	1 (120 hours)
Prerequisite	Drone Technologies 2: Theory and Design and Sixteen years old by the end of the course
Method of Delivery	F-2-F, Hybrid, Virtual

Drone Technologies 3: Learn to Fly introduces students to basic/advanced flight of drones to include manual flight and programmed flight with mapping software. Students learn to develop drone piloting knowledge and skills needed to obtain a FAA Remote Pilot certification, participate in drone mission planning, basic to advanced flight operations, and drone aircraft maintenance; execute communication needed as a flight crew team member and gain the knowledge, skills, and industry credentials for careers in drone technology. A minimum age of 16 is required for enrollment by the end of the course due to FAA Part 107 U.S. Commercial Drone Pilot Certification testing age requirement.

Global Logistics 1: Introduction to Logistics

Course Codes	6191
Recommended Maximum Enrollment	24
Grade Level	9, 10
Credits	1 (120 hours)
Prerequisite	None
Method of Delivery	F-2-F, Hybrid, Virtual

This Advanced Career course engages students in solving contextual problems related to the concepts of supply chains, warehouse location, contingency planning, insourcing, and outsourcing, and expanding existing supply chains. These concepts form the basis of global logistics and supply chain management and help students understand how professionals examine options to maximize the use of resources across distribution networks.

Global Logistics 2: Functional Areas in Logistics

Course Codes	6192
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours), 2 (240 hours) per course code
Prerequisite	Introduction to Logistics
Method of Delivery	F-2-F, Hybrid, Virtual

This Advanced Career course compels students to explore deeper understandings of the concepts they discovered in the previous course as they navigate projects on warehouse design, inventory management, transportation optimization, information technology, emergency responsiveness, and the supply chain for manufacturing. Students use their experiences in this course to discover ways that professionals minimize the outlay of resources while improving efficiency and ability in the global market.

Global Logistics 3: Global Logistics Management

Course Codes	6193
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours), 2 (240 hours) per course code
Prerequisite	Functional Areas in Logistics
Method of Delivery	F-2-F, Hybrid, Virtual

This Advanced Career course offers challenging projects that require students to look at the global implications of the industry in more earnest as they experiment with decisions over intermodal transportation, route selection, international shipping regulations, emergency preparedness, cultural awareness, business ethics, and international trade restrictions related to a distribution strategy. Students develop their understanding of the industry in this course and truly build their awareness of the challenges of doing business in a world with multiple borders that must be traversed.

Global Logistics 4: Logistics and Supply Chain Management

Course Codes	6194
Recommended Maximum Enrollment	24
Grade Level	9, 10
Credits	1 (120 hours)
Prerequisite	None
Method of Delivery	F-2-F, Hybrid, Virtual

This Advanced Career course allows students to see the implications of all the concepts they learned in the previous three courses as they consider environmental impact, selecting business partners in a global and domestic chain, information technology, and decisions regarding e-commerce. Students explore the ongoing need to balance dependability and resource outlay in meeting customer demands around the world. Projects will expand students' decision-making skills as they tackle issues related to transportation, distribution networks and manufacturing. Global Logistics & Supply Chain Management is for students who want to solve complex spatial problems on a global scale through careful research and critical thinking about how to move people and products between points.

Introduction to Transportation, Distribution, and Logistics

Course Codes	6015
Recommended Maximum Enrollment	24
Grade Level	9, 10
Credits	1 (120 hours)
Prerequisite	None
Method of Delivery	F-2-F, Hybrid, Virtual

Introduction to Transportation, Distribution, and Logistics is a foundation course that covers a broad industry sector responsible for managing the flow of goods, information, and people between a point of origin and a point of consumption to meet the requirements of consumers. Major sub-sectors within the industry include air, rail, water, truck transportation, urban transit and ground passenger transportation, warehousing and storage, and motor vehicle repair. Logistics involves the integration of these sub sectors, including information, transportation, and inventory, warehousing, material-handling, and packaging.

Power Equipment Technology 1, 2, 3, 4

Course Codes	6300, 6301, 6302, 6303
Recommended Maximum Enrollment	24
Grade Level	10, 11, 12
Credits	1 (120 hours), 2 (240 hours) per course code
Prerequisite	No prerequisite for Level 1; Courses taken sequentially
Method of Delivery	F-2-F, Hybrid

This program is designed to prepare students to perform entry-level maintenance and repair tasks under the supervision of an experienced technician. Students receive training on small internal combustion engines used on portable equipment such as lawn mowers, chain saws, rotary tillers, motorcycles, pumps, compressors, and small boats. The training includes locating and solving problems, using specialized test equipment, overhauling the basic engine, and repairing or replacing engine systems.

***Transportation, Distribution & Logistics Internship, Work-Based Credit**

Course Code	6790
Recommended Maximum Enrollment	NA
Grade Level	11, 12
Credits	1 (120 hours)
Prerequisite	Completion of two (2) CTE courses/units within a program
Method of Delivery	F-2-F

Transportation, Distribution and Logistics Internship is a structured, work-based credit bearing course that is taken as a component of state recognized Career and Technical Education (CTE) Classification of Instructional Programs (CIP)-coded programs for CTE students. Each work-based learning (credit-bearing) course has an assigned CTE course code, and guidelines must be followed to award one Carnegie unit of credit upon successful completion of the course.

***This course will not count as the third unit for a three-unit completer pathway nor a fourth unit in a four-unit completer pathway.**

Program Team Assignments and Contact Information

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<ul style="list-style-type: none"> ● Arts, A/V Technology & Communications ● Science, Technology, Engineering & Mathematics ● Transportation, Distribution & Logistics 	<p>B. T. Martin 803-734-3398 btmartin@ed.sc.gov</p>
<ul style="list-style-type: none"> ● Business Management & Administration ● CTE Curriculum Standards ● Finance ● Marketing ● Technical Skills Assessments 	<p>Dana Depew 803-734-2828 ddepew@ed.sc.gov</p>
<ul style="list-style-type: none"> ● CTE Innovative and Renewal Applications ● Industry Recognized Certification ● Required Credentials for Educator Assignments ● Student Reporting Procedures Guide 	<p>Murline Ingram 803-734-4901 mingram@ed.sc.gov</p>

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